

CCA GCA ACC AAT GAT GCC CGT T-TAMRA-3'  
 CA GCA ACC AAT GAT GCC CGT T-TAMRA-3'

CCA GCA AGC ACT GAT GCC TGT T-TAMRA-3'  
 CA GCA AGC ACT GAT GCC TGT T-TAMRA-3'

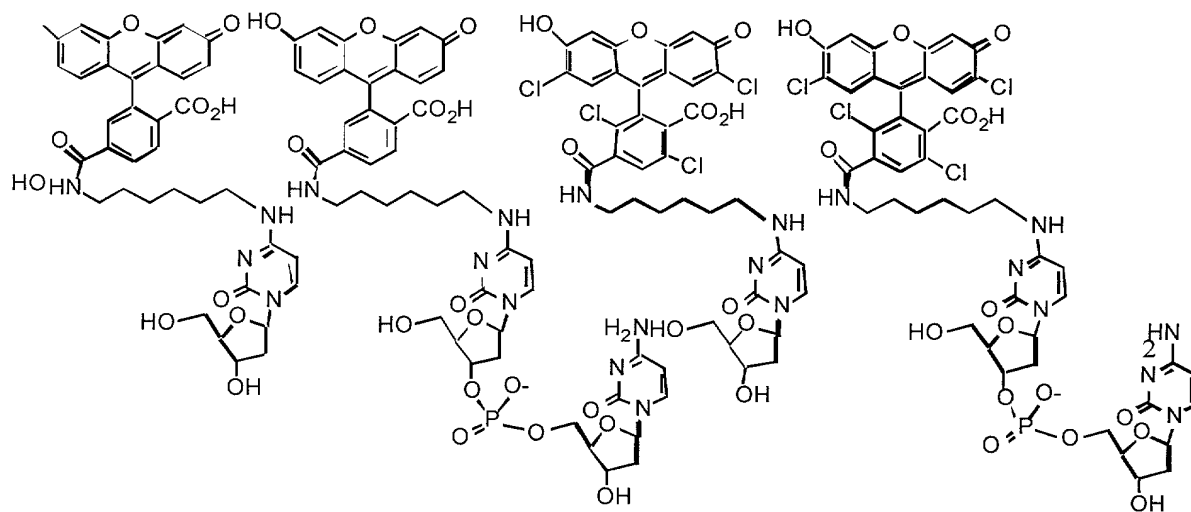
**Fig. 1A**

Fluorescent Dyes

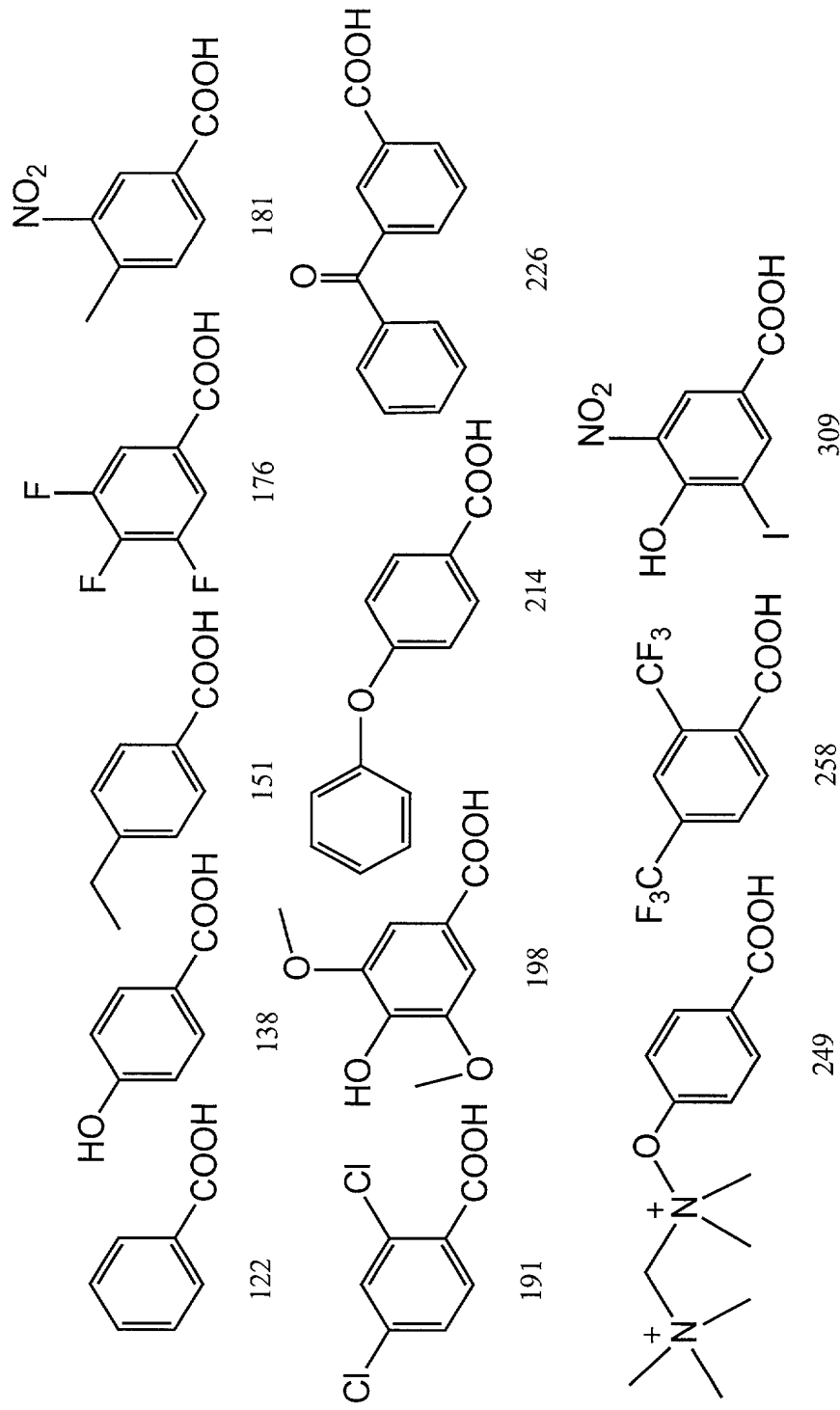
	<u>Absorbance Maxima</u>	<u>Emission Maxima</u>
Fluorescein	494nm	525nm
Tetrachloro fluorescein	521nm	536nm
TAMRA	565nm	580nm

**Fig. 1B**

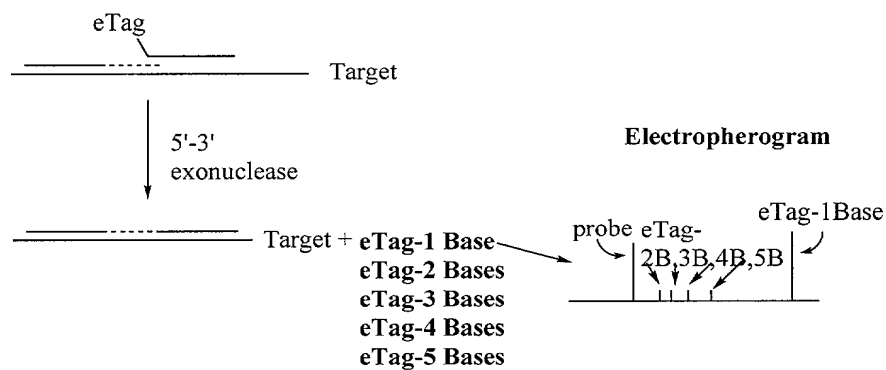
Cleaved Fragments:



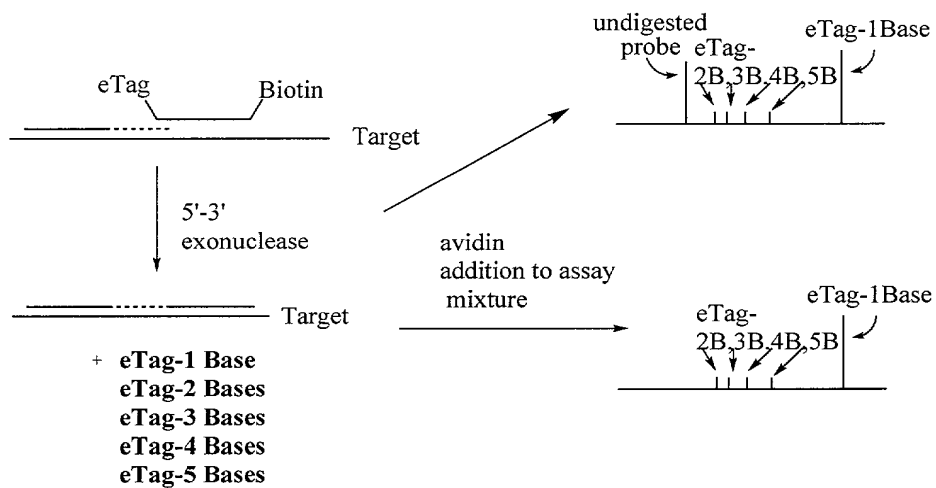
**Fig. 1C**



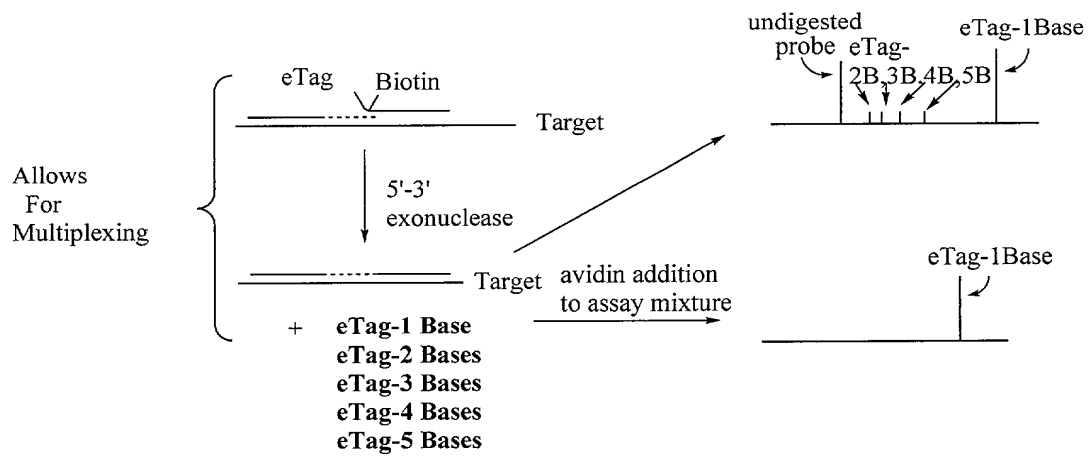
**Fig. 2**



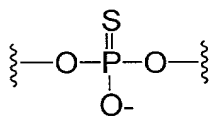
**Fig. 3A**



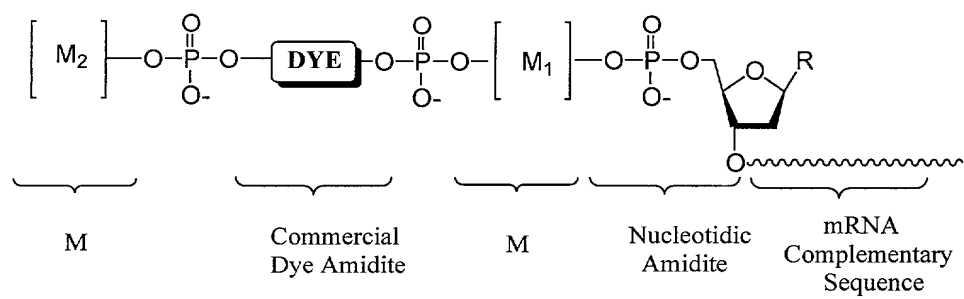
**Fig. 3B**



**Fig. 3C**

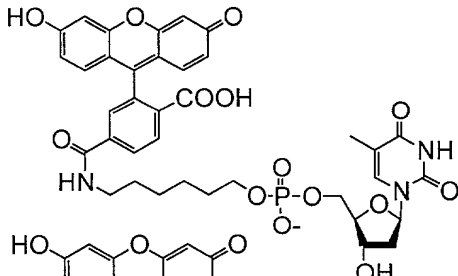
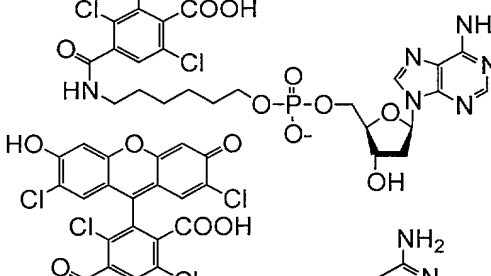
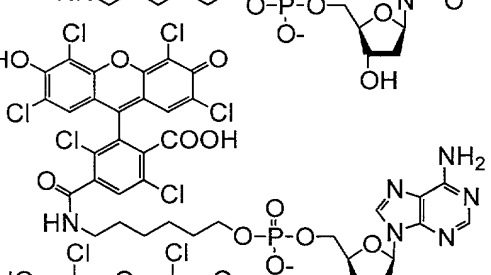
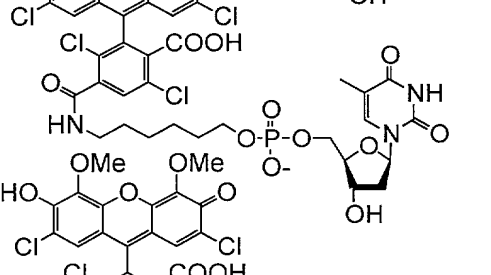
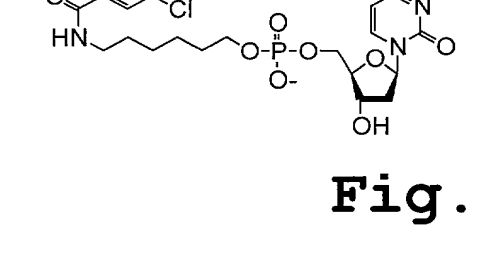



**Fig. 3D**



**Fig. 4**

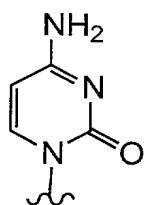
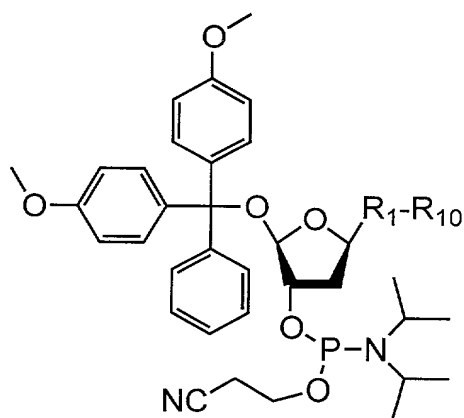
Figure 5 shows the chemical structures of the e-tag Reporter and the corresponding mass and elution time on CE, min.

<u>e-tag Reporter</u>	<u>Elution Time on CE, min</u>	<u>Mass</u>
	6.4	778
	7.1	925
	7.3	901
	7.7	994
	8.0	985
	9.25	961

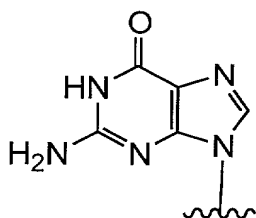
**Fig. 5**

e-tag Reporter	Charge	Elution Time, min
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_3 \text{C}_3 \text{C}_3 \text{C}_3 \text{C}_3 \text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-8	12.1*
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_6 \text{C}_6 \text{C}_6 \text{C}_6 \text{C}_6 \text{C}_6 \text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-9	12.7
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_6 \text{C}_6 \text{C}_6 \text{C}_6 \text{C}_6 \text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-8	12.8
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_6 \text{C}_6 \text{C}_6 \text{C}_6 \text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-7	13.1
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_3 \text{C}_3 \text{C}_9 \text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-6	13.0
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_6 \text{C}_6 \text{C}_6 \text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-6	13.4
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_3 \text{C}_3 \text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-5	12.8*
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_3 \text{C}_9 \text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-5	13.2*
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_9 \text{C}_9 \text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-5	14.8
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{TTTdC} \\ \parallel \\ \text{O}^- \end{array}$	-6	17.3
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{TTdC} \\ \parallel \\ \text{O}^- \end{array}$	-5	17.0
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_9 \text{---} \text{dT} \\ \parallel \\ \text{O}^- \end{array}$	-4	15.2*
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{C}_5 \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{TdC} \\ \parallel \\ \text{O}^- \end{array}$	-4	16.5

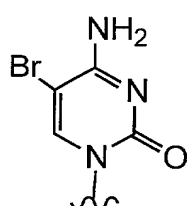
**Fig. 6**



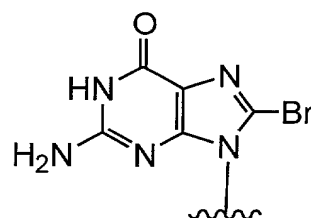
227



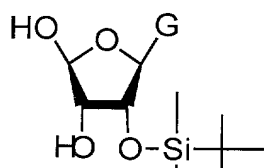
267



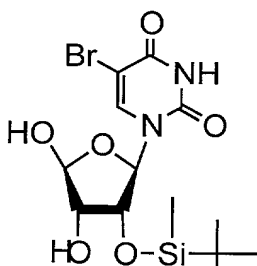
306



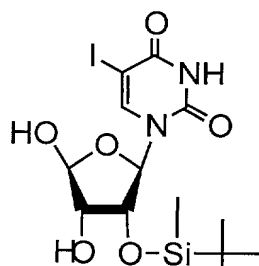
346



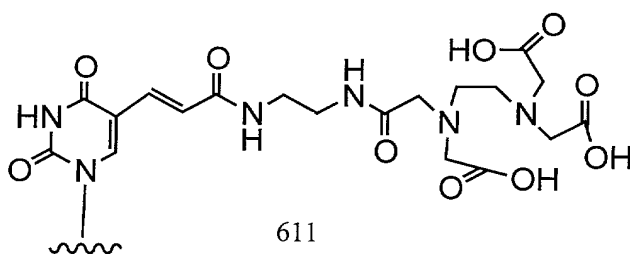
396



436



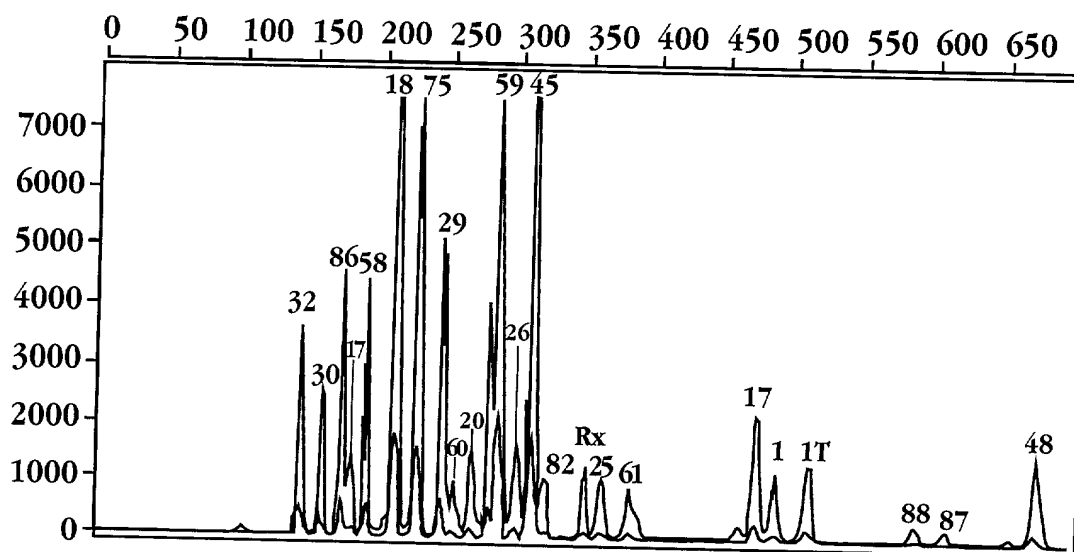
484



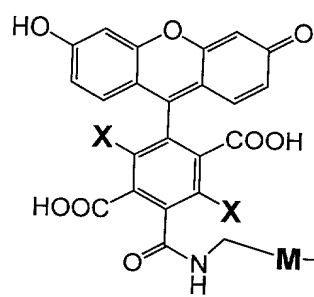
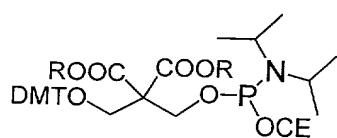
611

**Fig. 7**



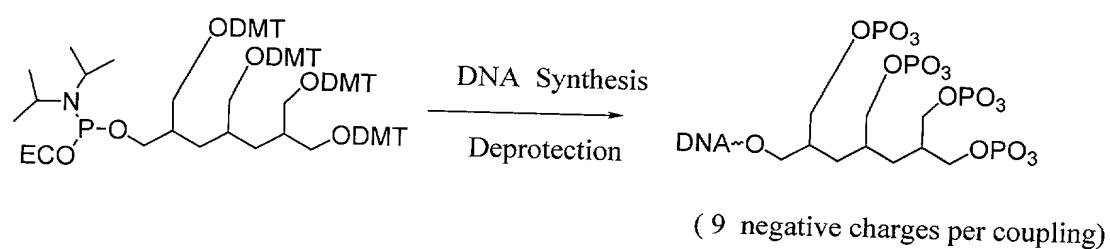


**Fig. 8**

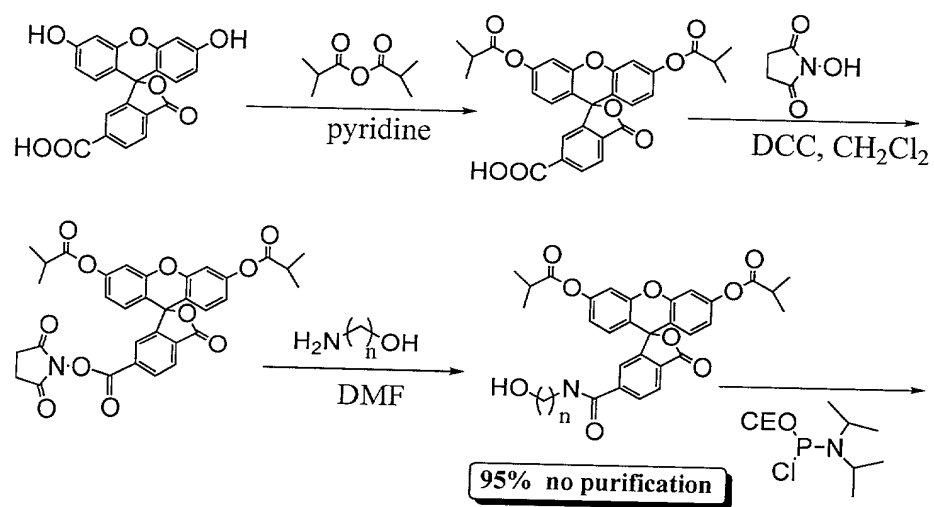


M = mobility modifier  
X = halogen

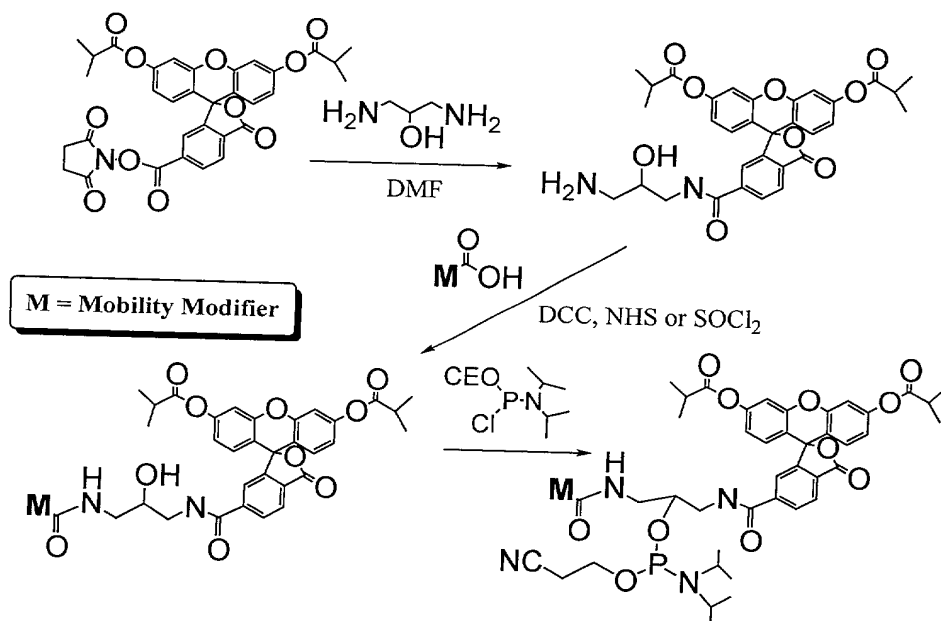
**Fig. 9**



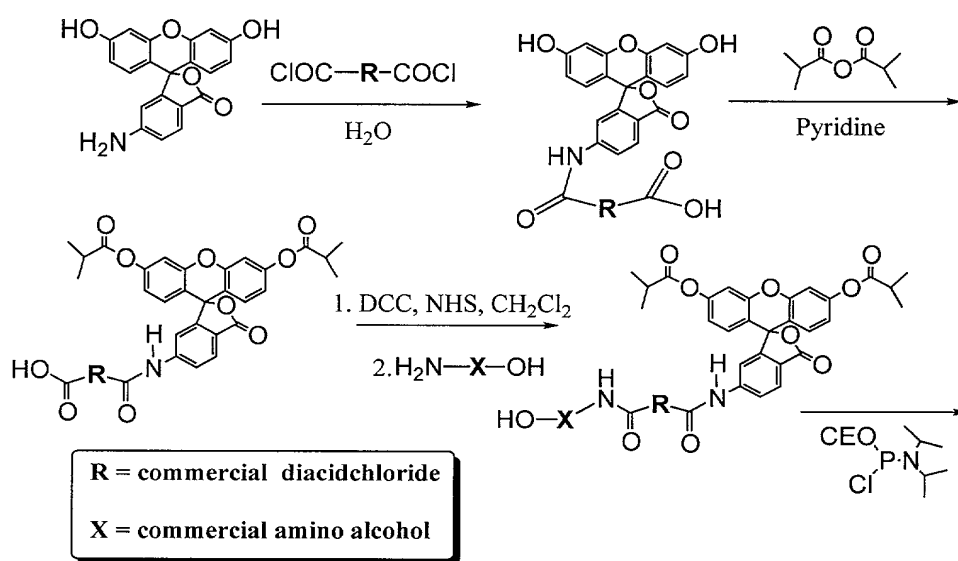
**Fig. 10**



**Fig. 11**

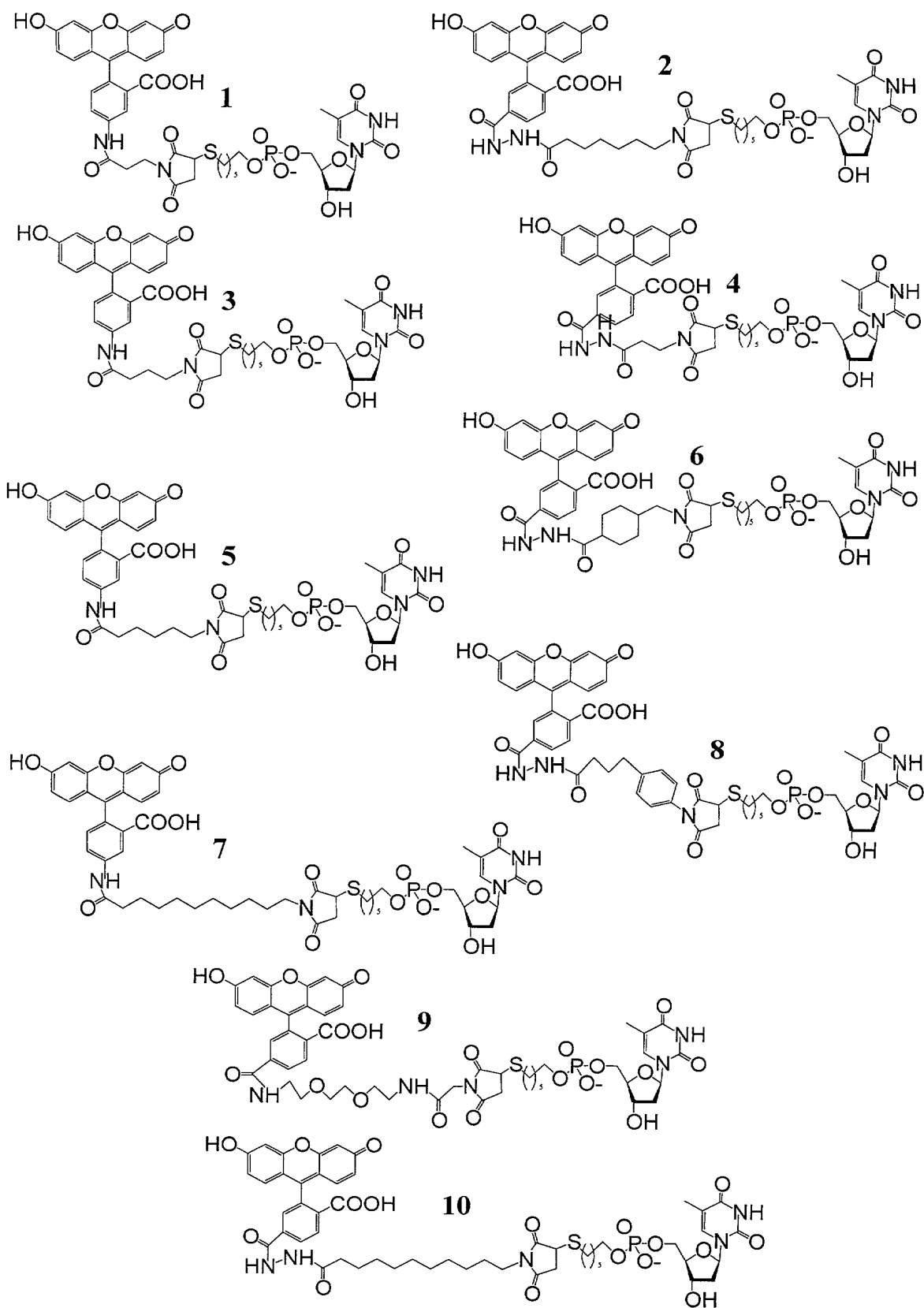


**Fig. 12**



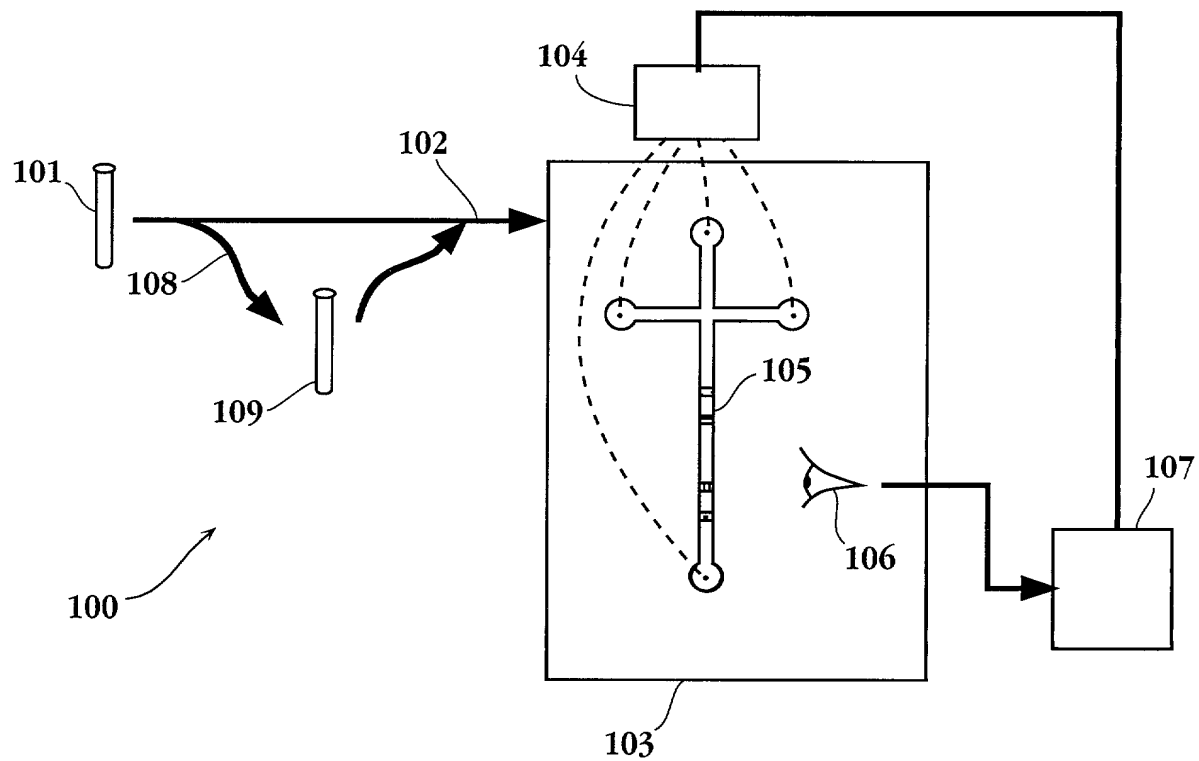
**Fig. 13**



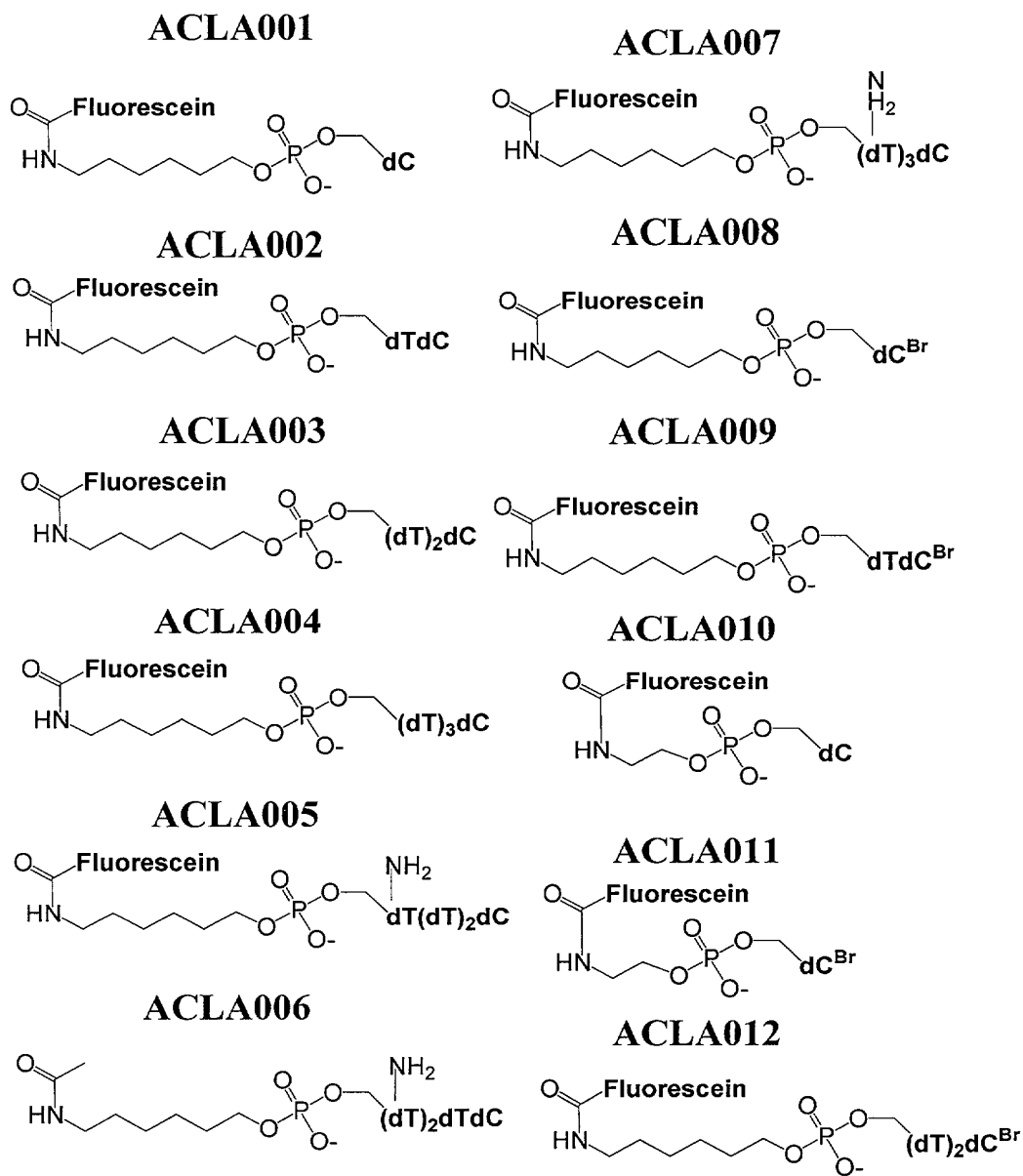


**Fig. 15**

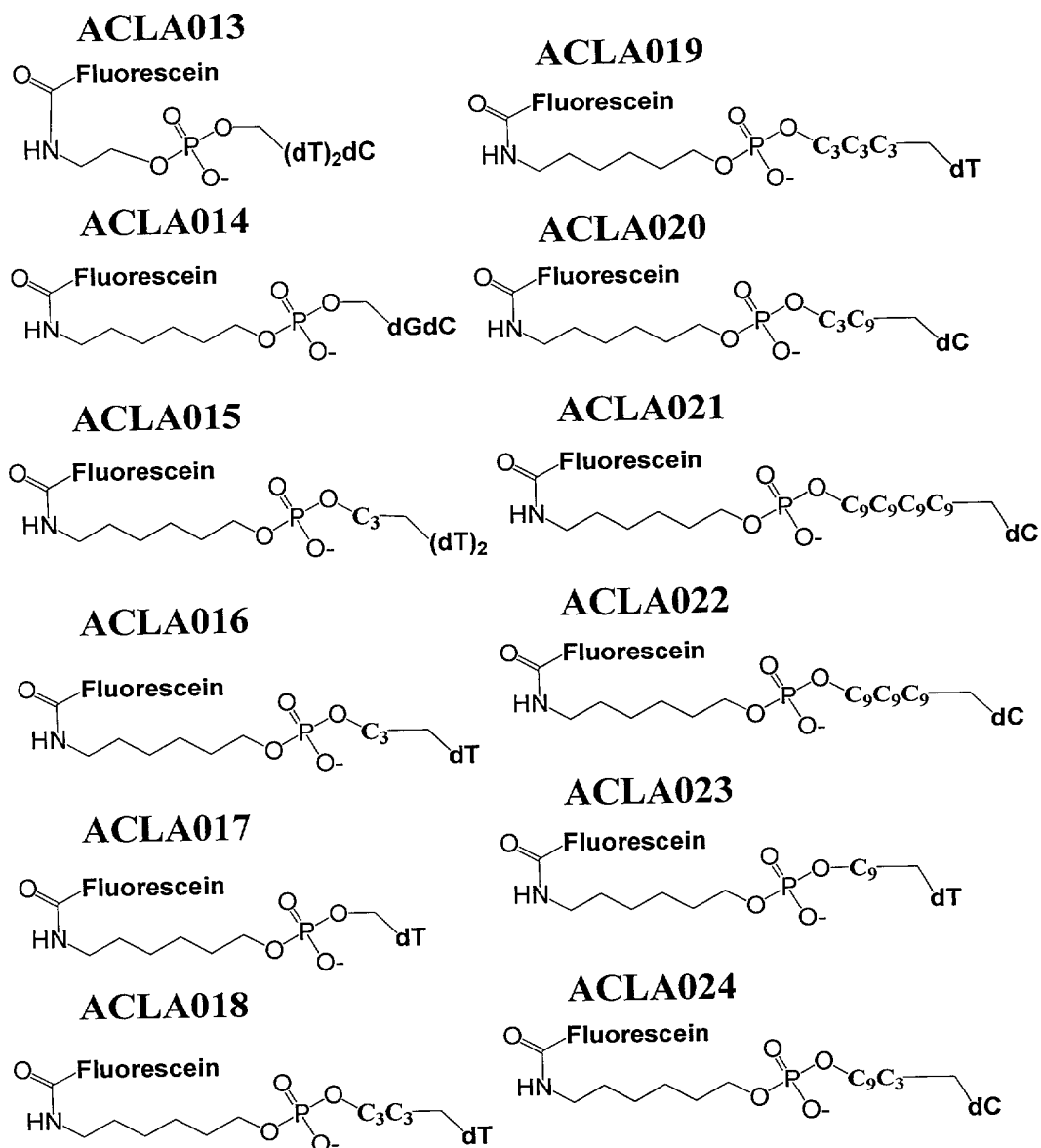




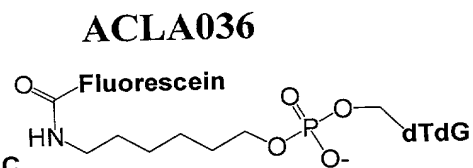
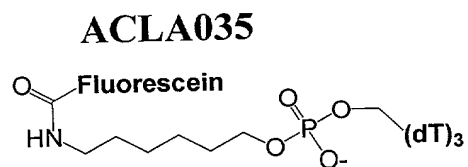
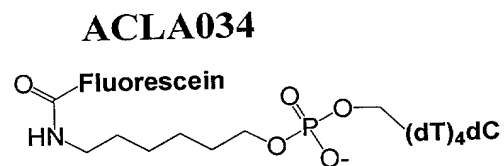
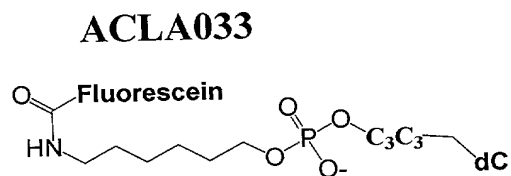
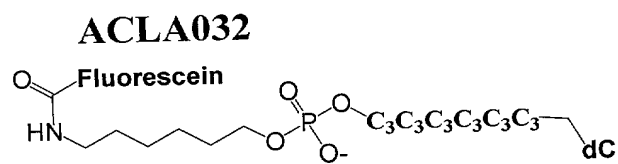
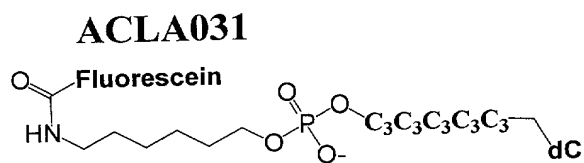
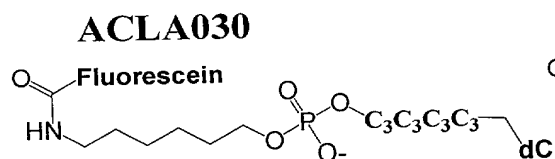
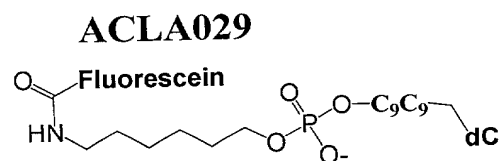
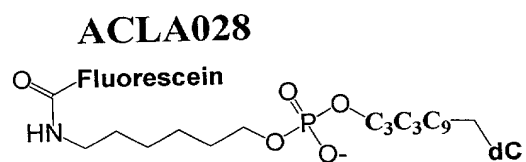
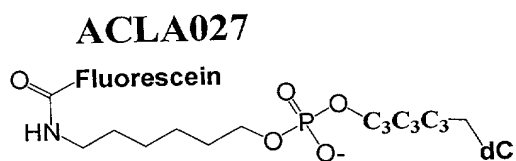
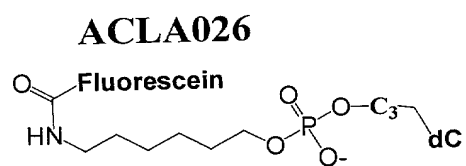
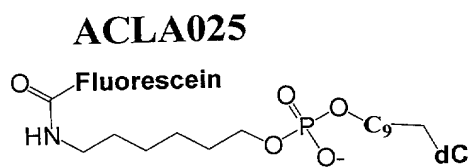
**Fig. 16**



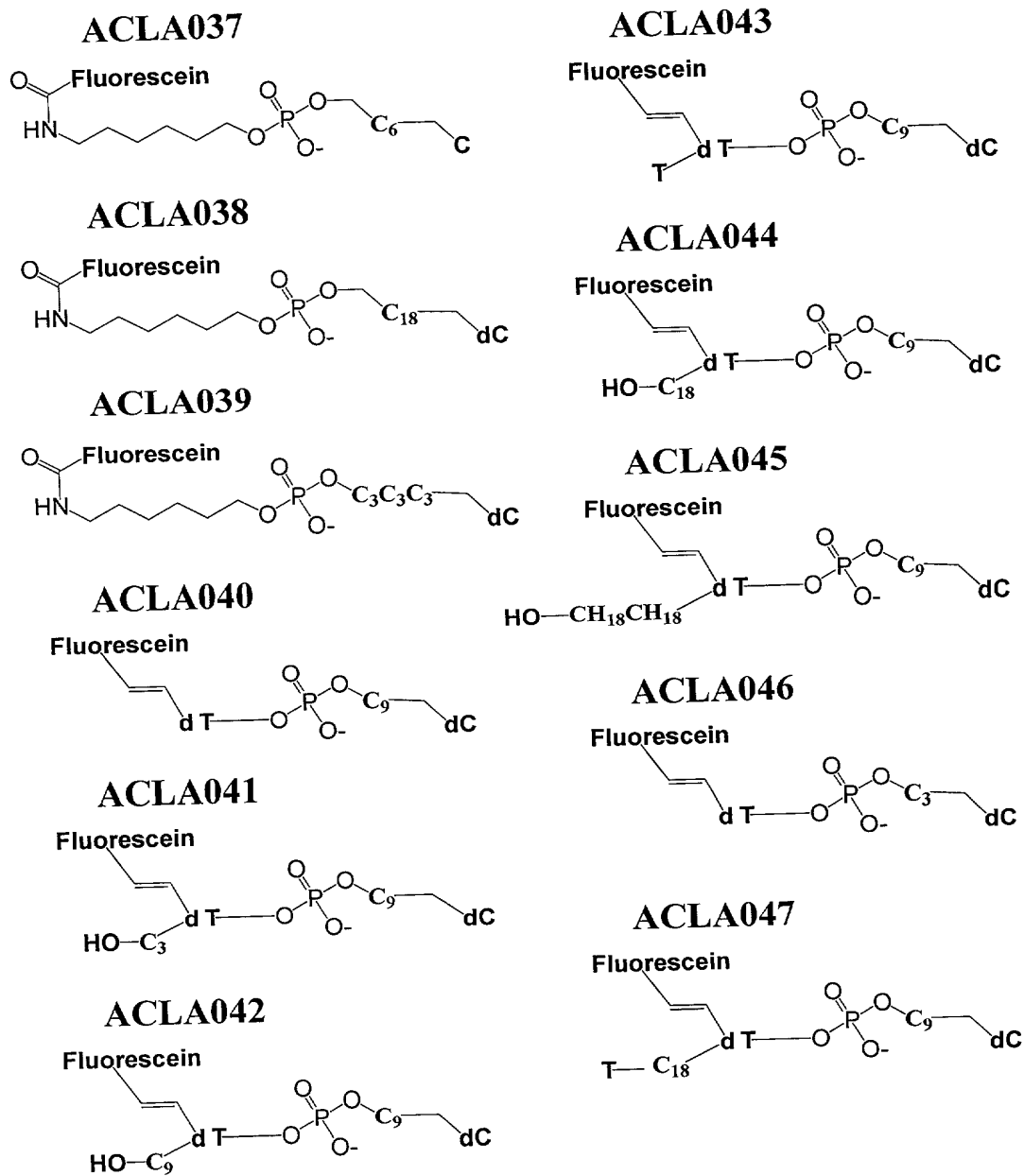
**Fig. 17A**



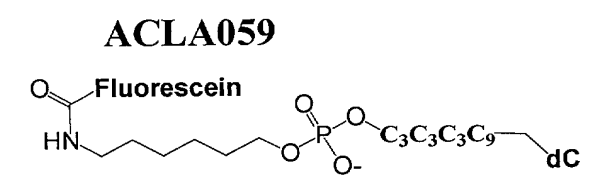
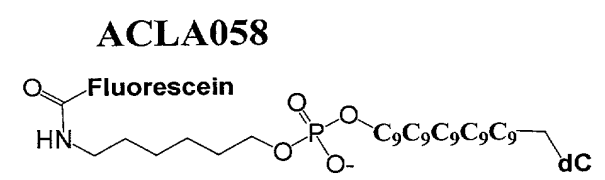
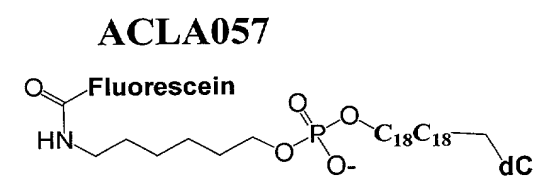
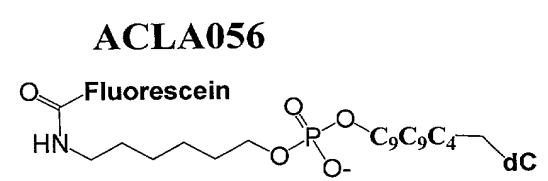
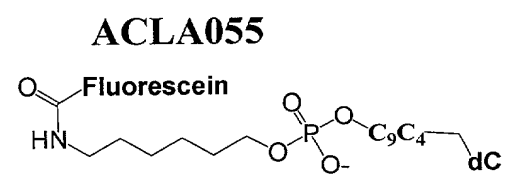
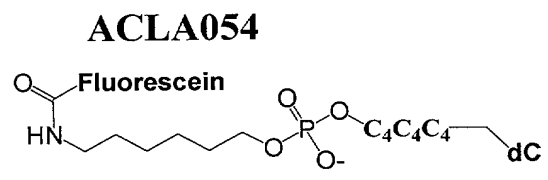
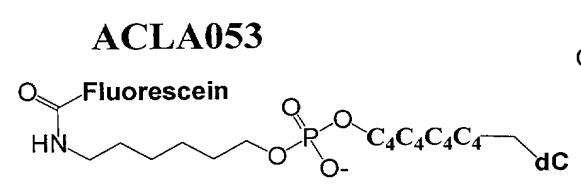
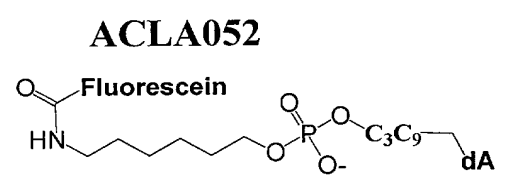
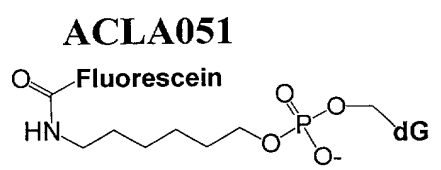
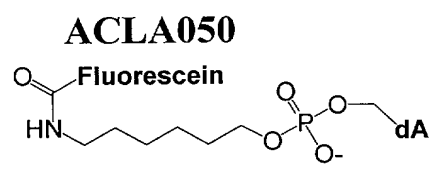
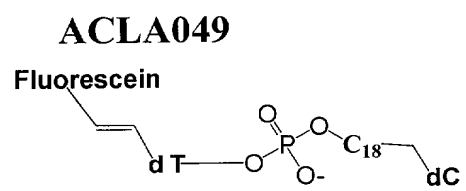
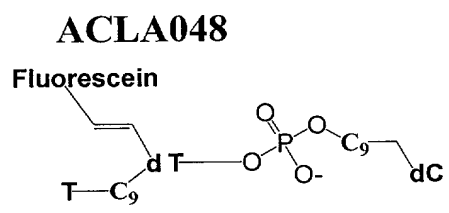
**Fig. 17B**



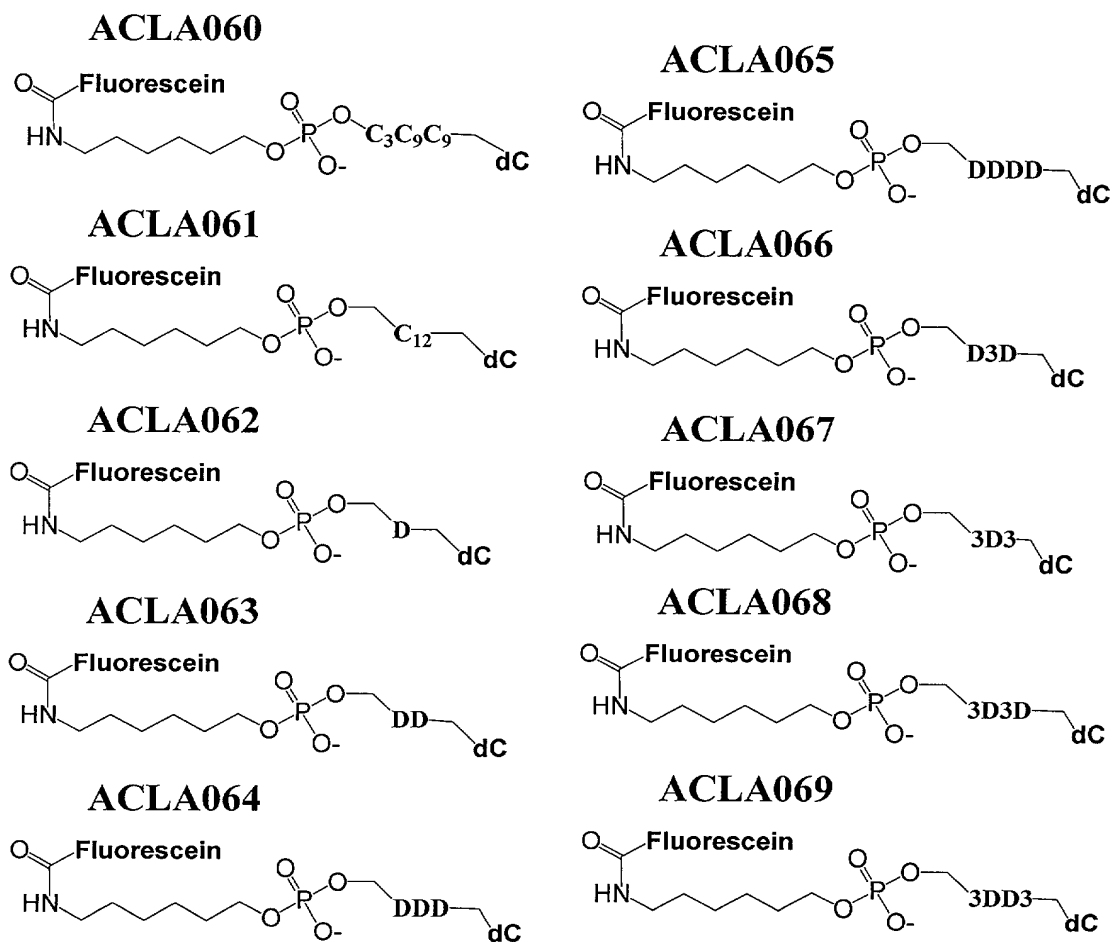
**Fig. 17C**



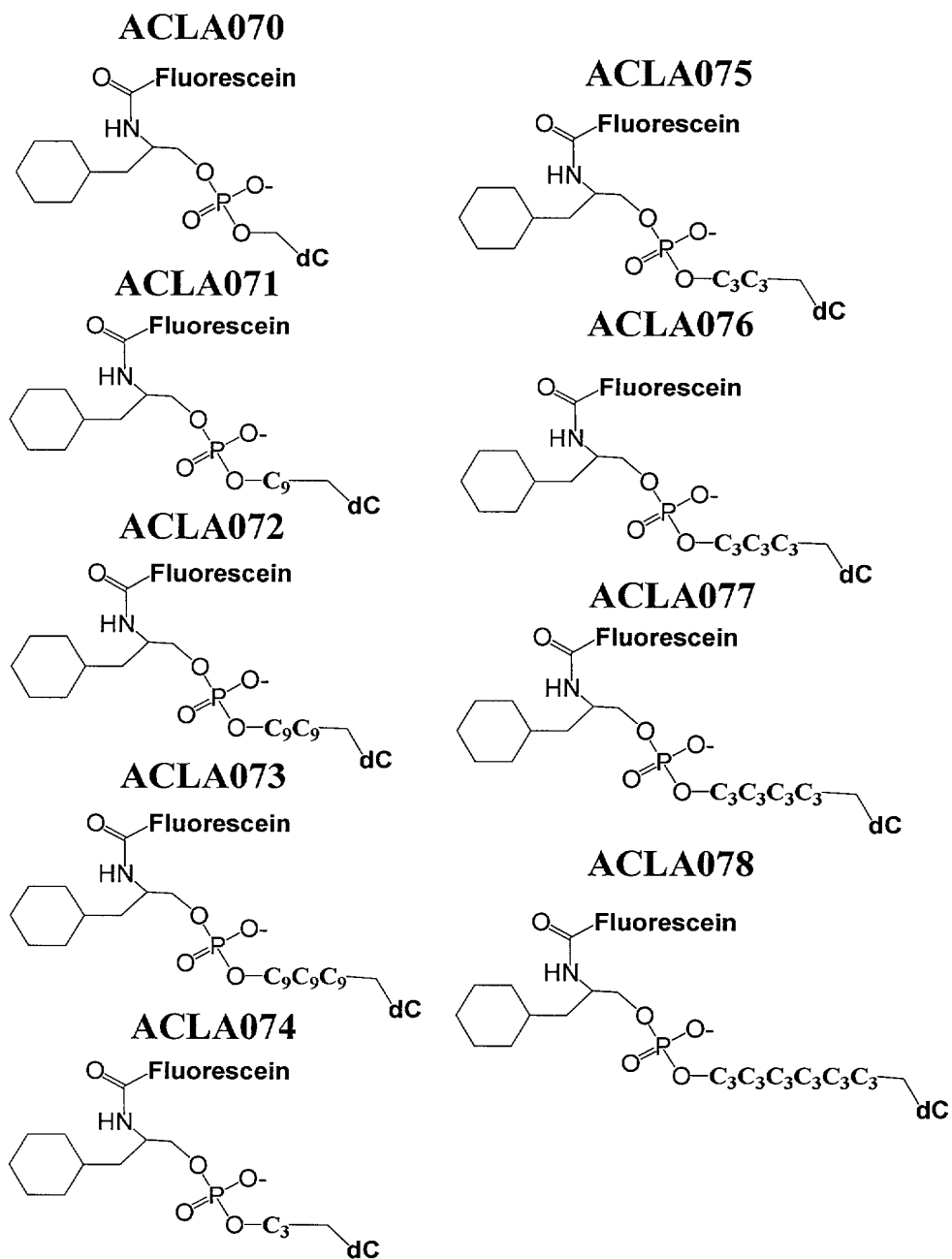
**Fig. 17D**



**Fig. 17E**

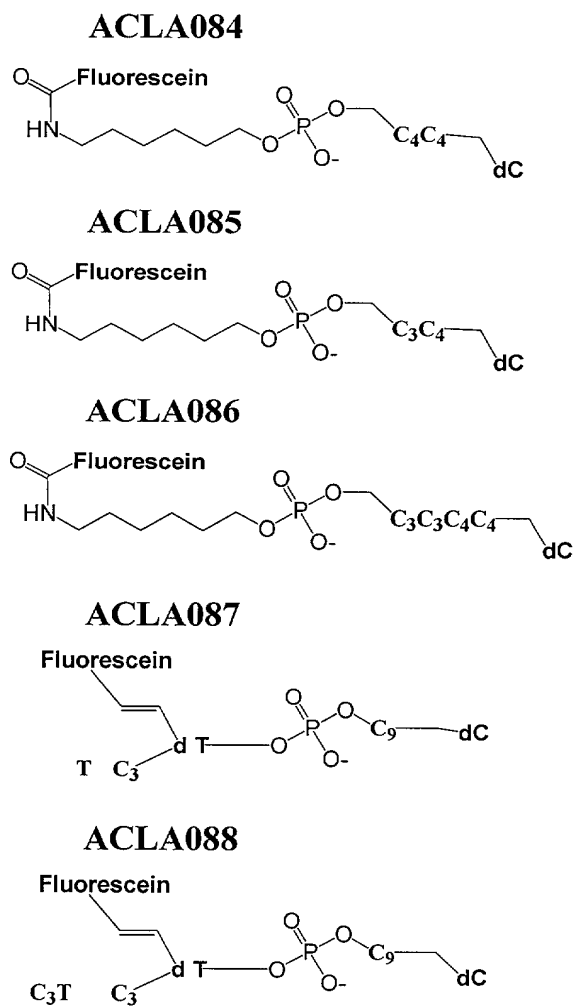
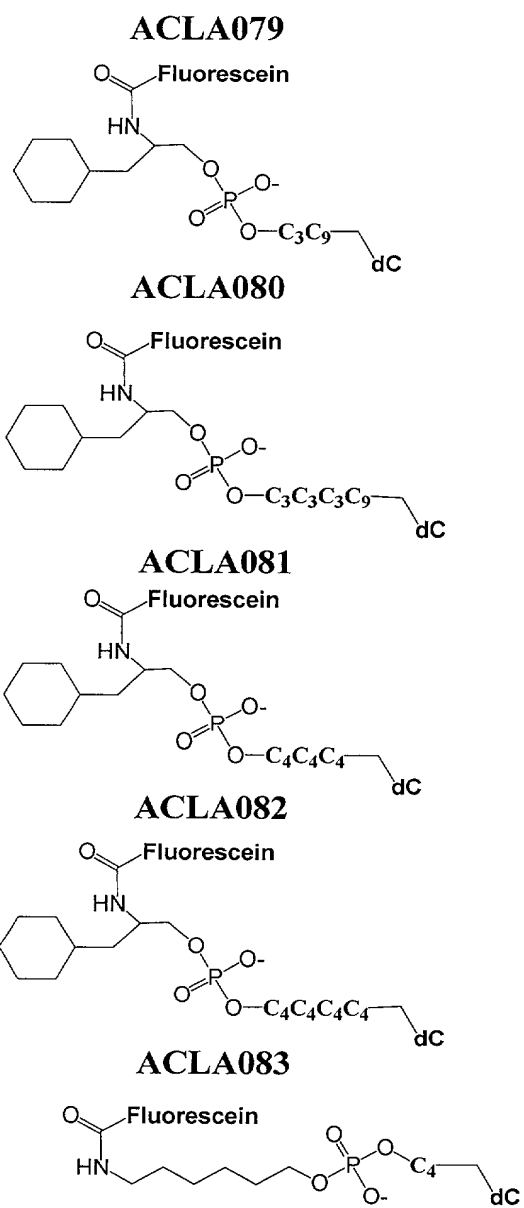


**Fig. 17F**



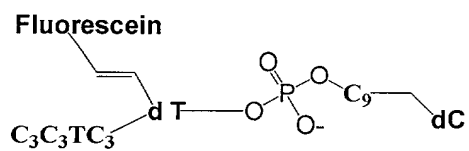
**Fig. 17G**



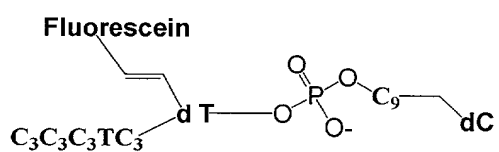


**Fig. 17H**

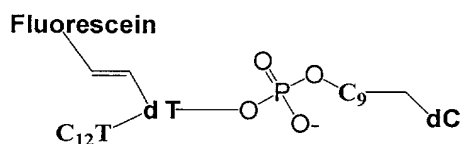
**ACLA089**



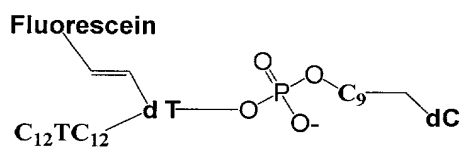
**ACLA090**



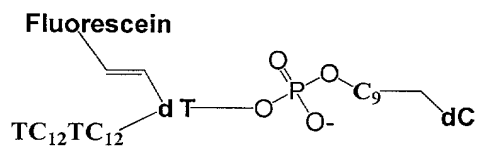
**ACLA091**



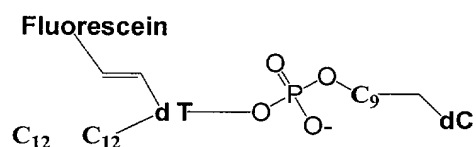
**ACLA092**



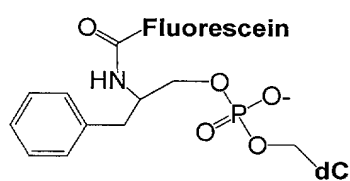
**ACLA093**



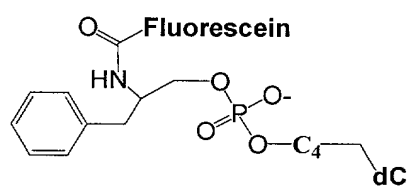
**ACLA094**



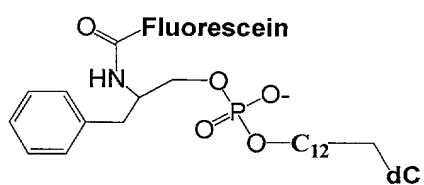
**ACLA095**



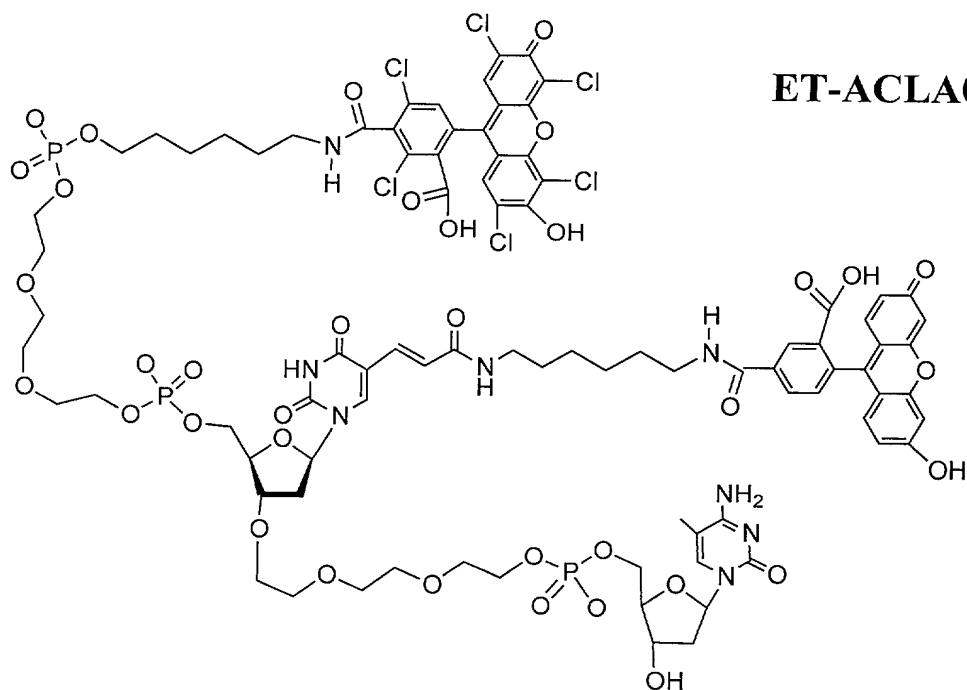
**ACLA096**



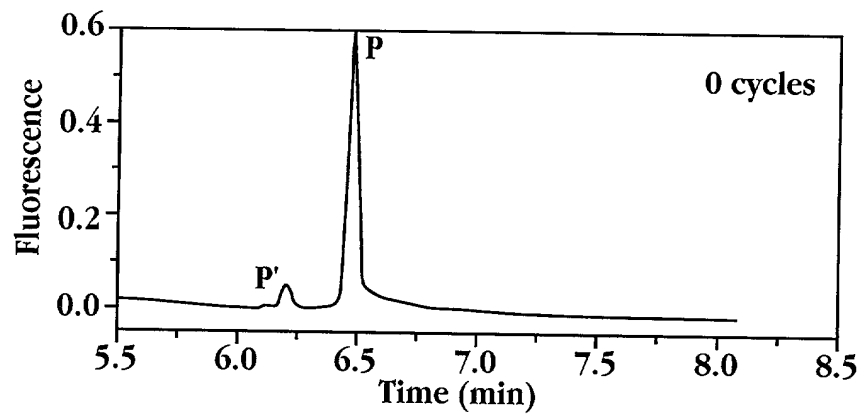
**ACLA097**



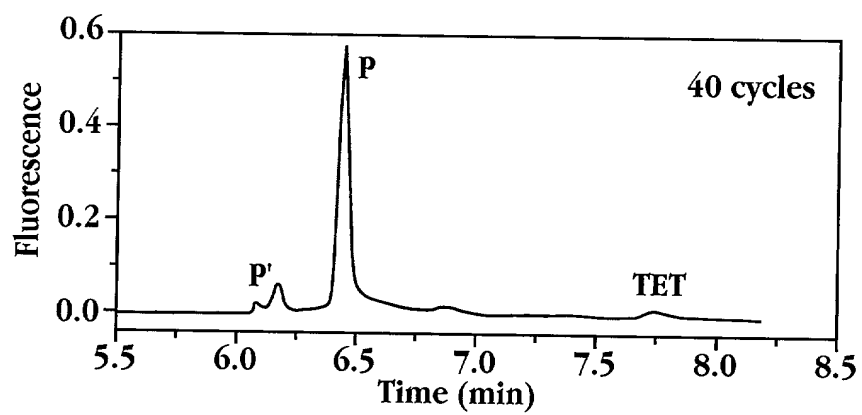
**Fig. 17I**



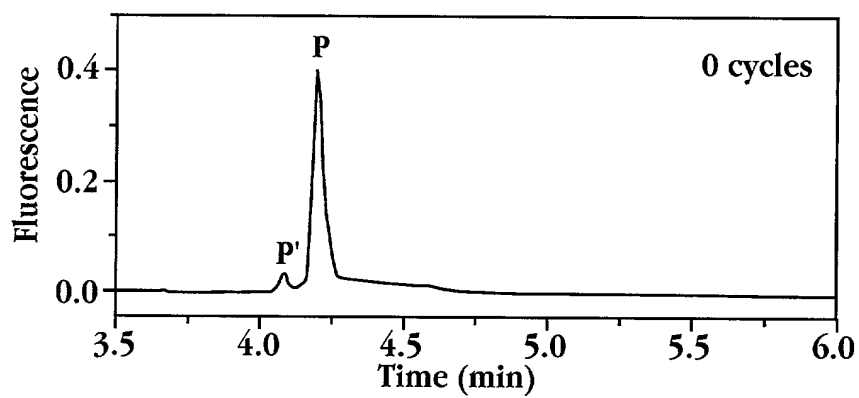
**Fig. 17J**



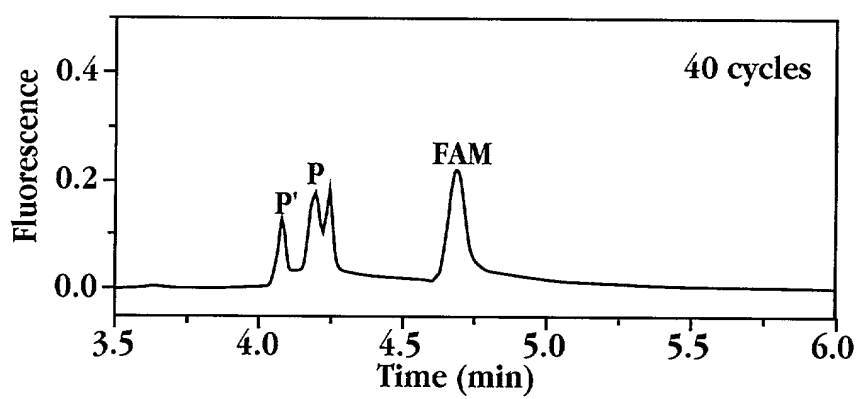
**Fig. 18A**



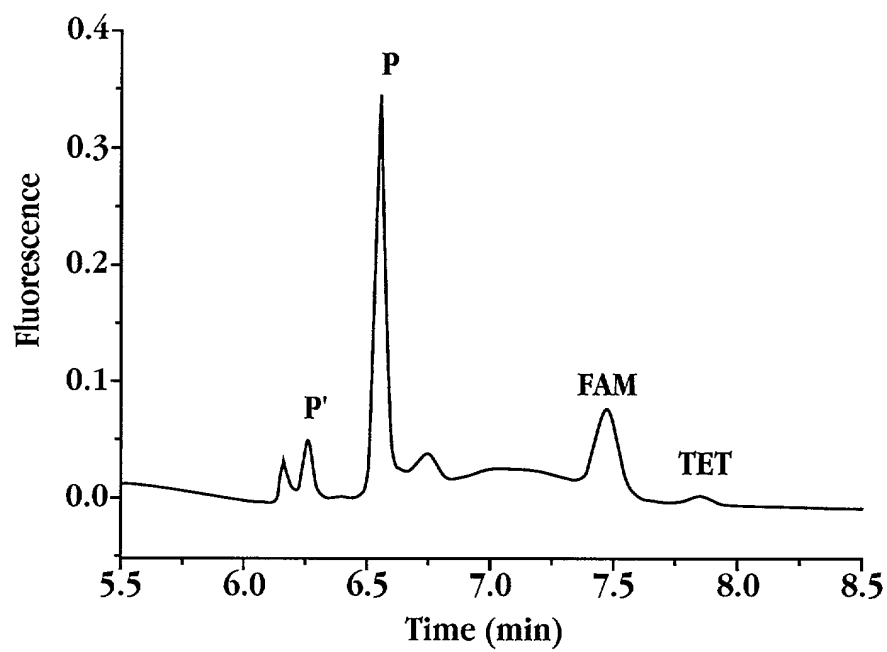
**Fig. 18B**



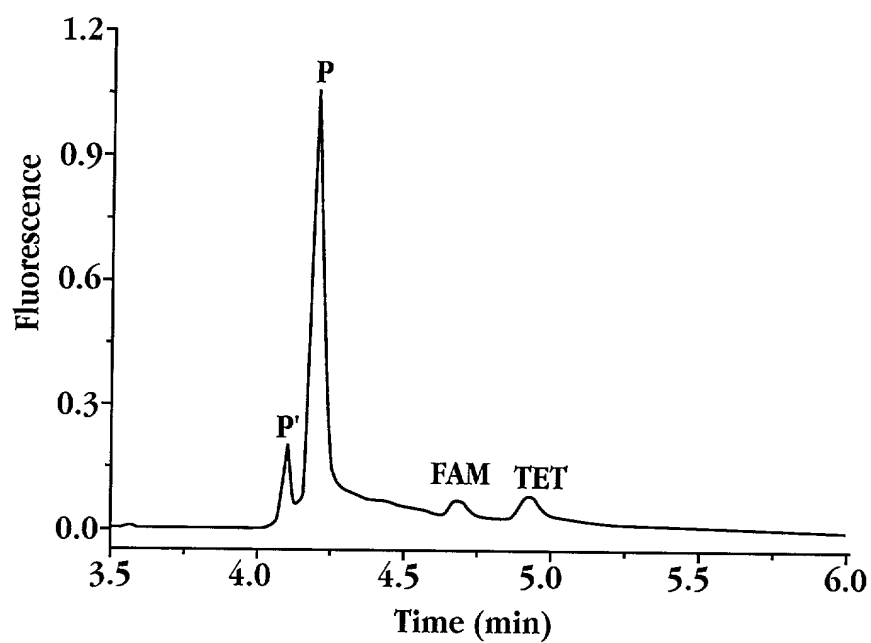
**Fig. 19A**



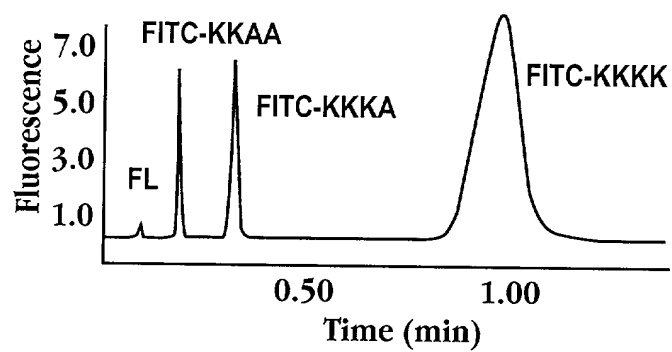
**Fig. 19B**



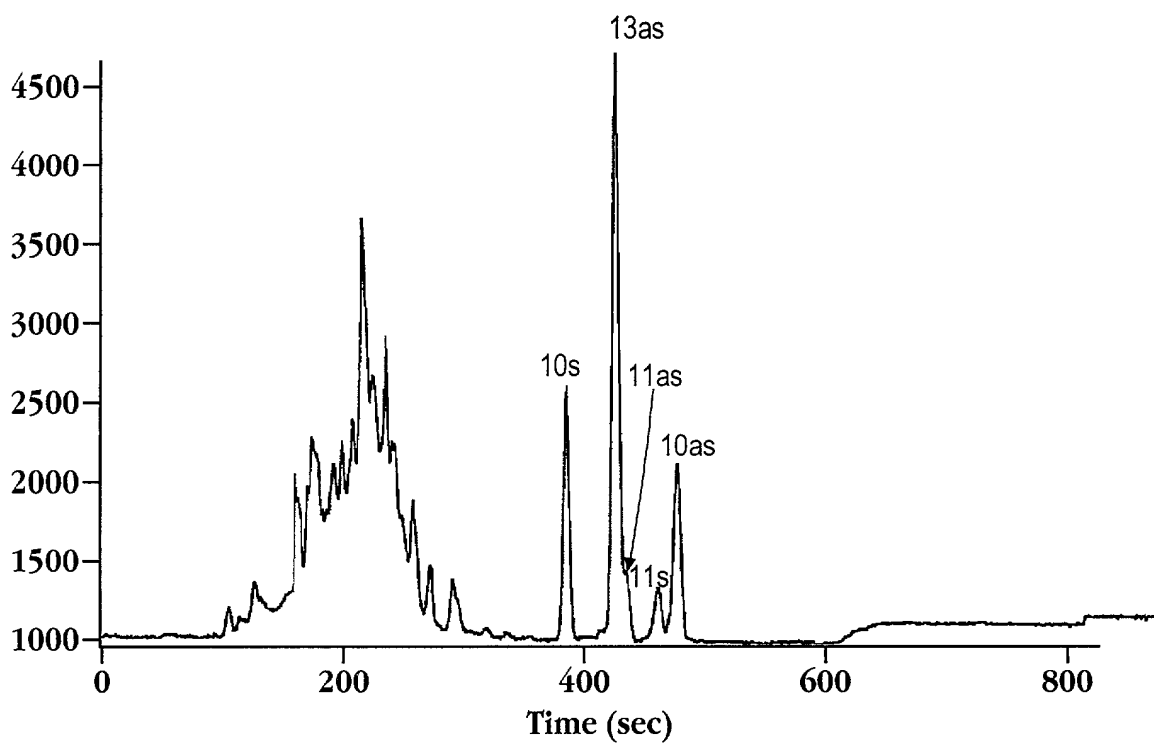
**Fig. 20**



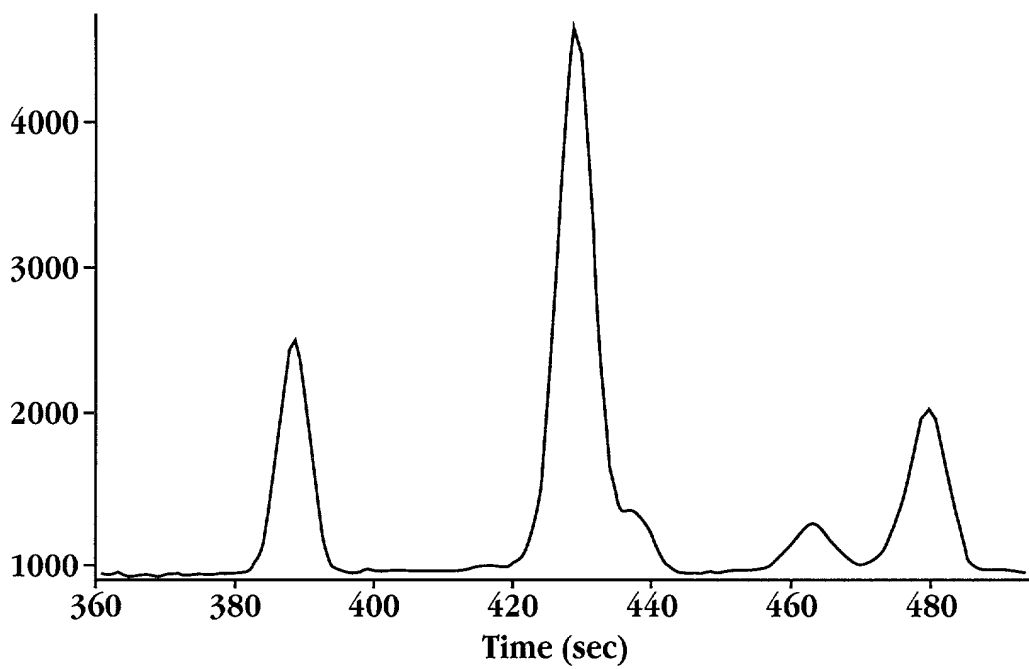
**Fig. 21**



**Fig. 22**

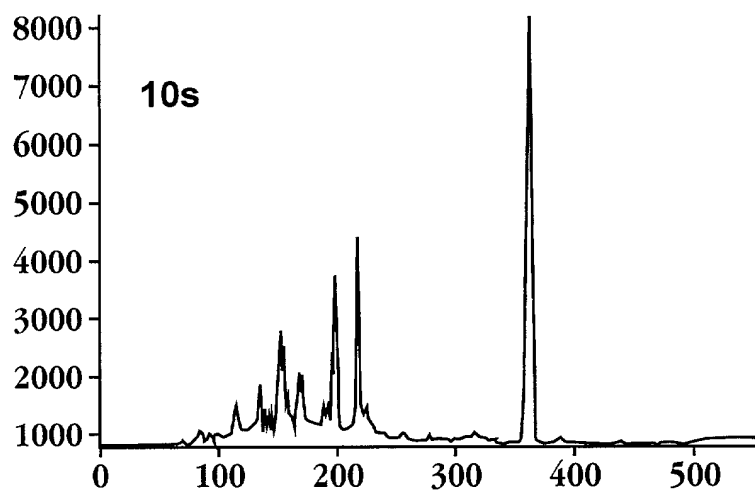


**Fig. 23A**

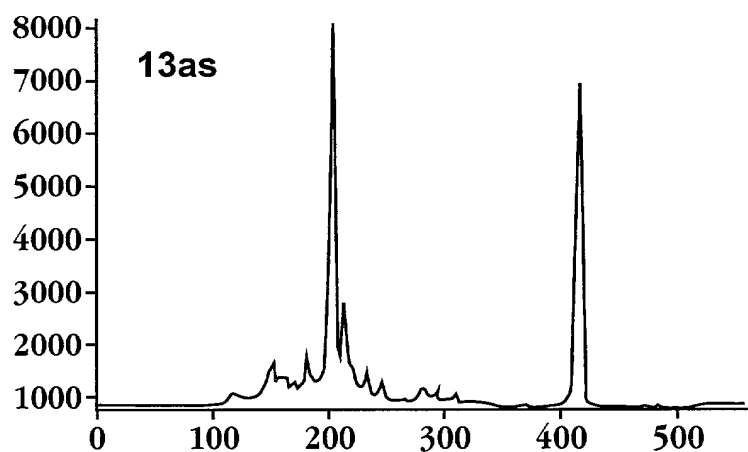


**Fig. 23B**

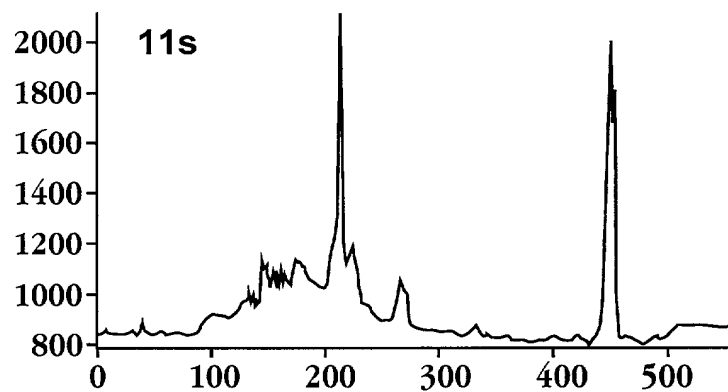




**Fig. 23C**



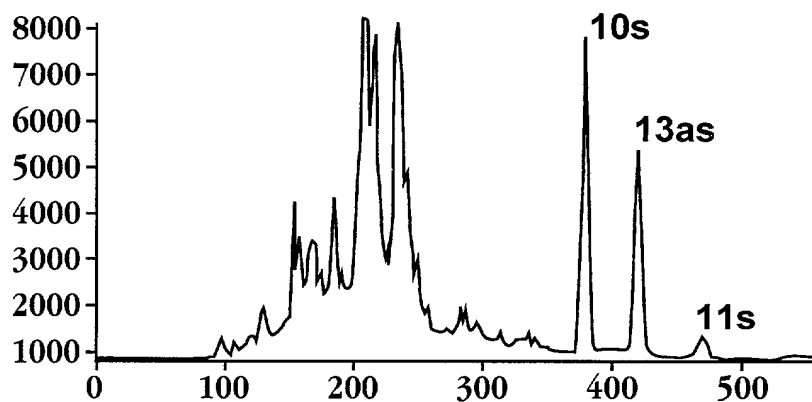
**Fig. 23D**



**Fig. 23E**

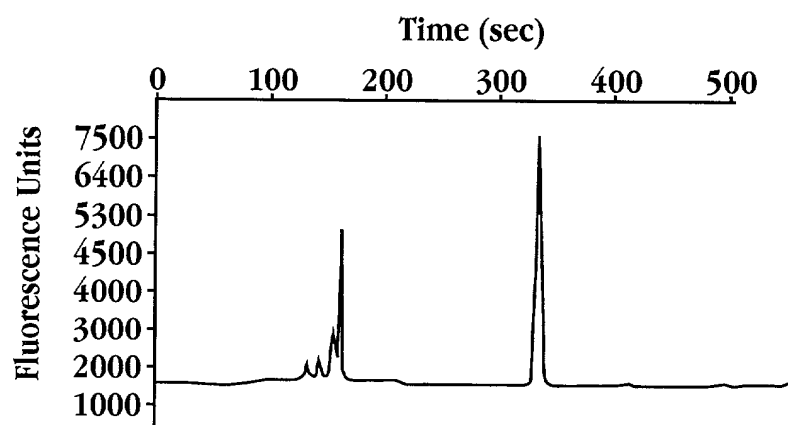


**Fig. 23F**

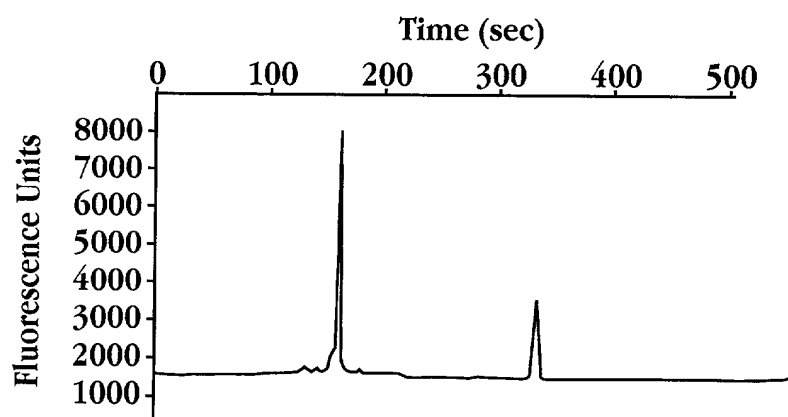


**Fig. 23G**

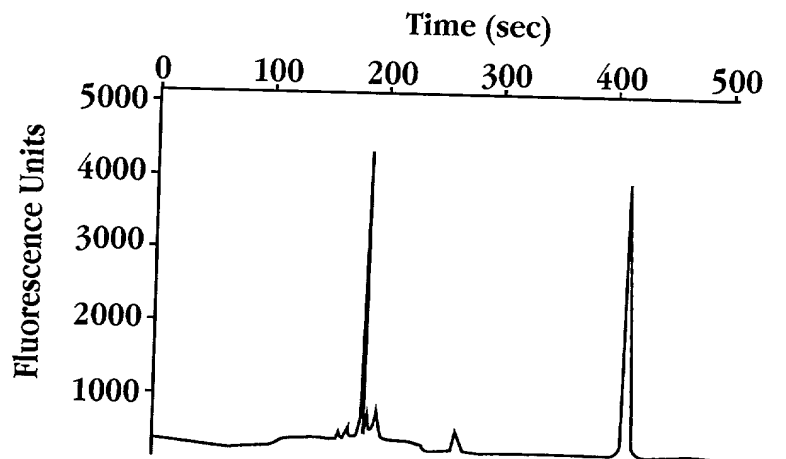




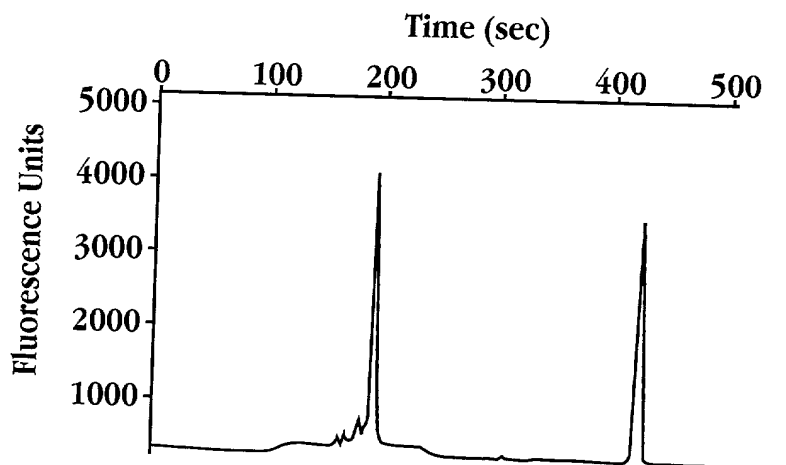
**Fig. 25A**



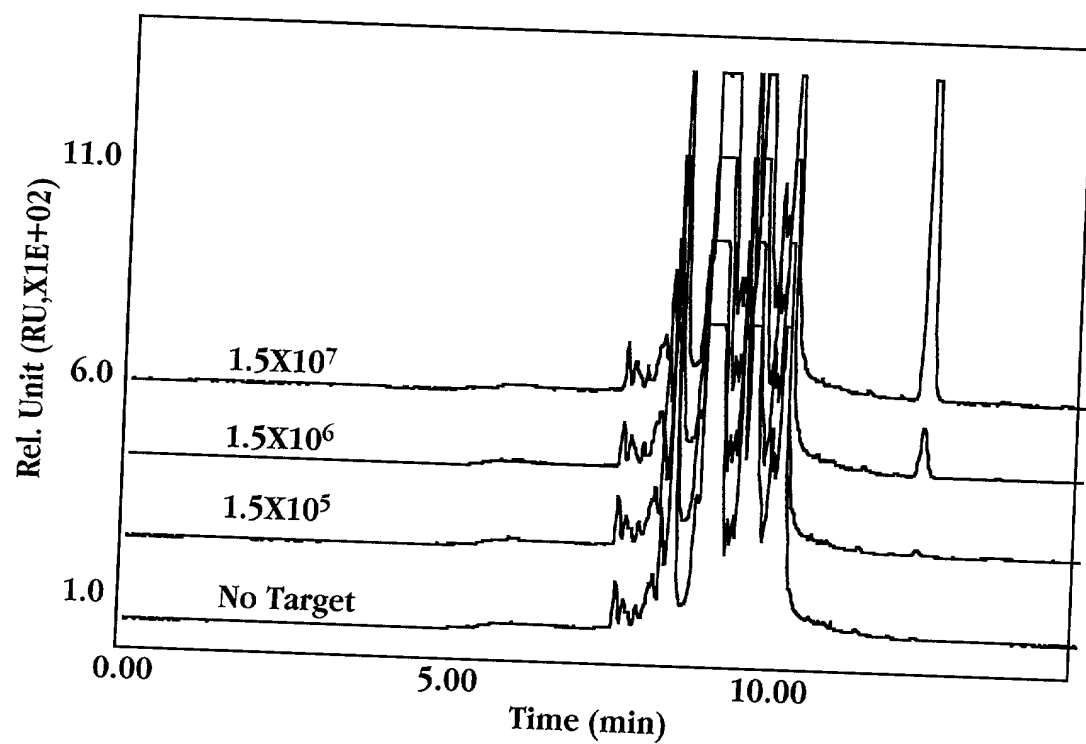
**Fig. 25B**



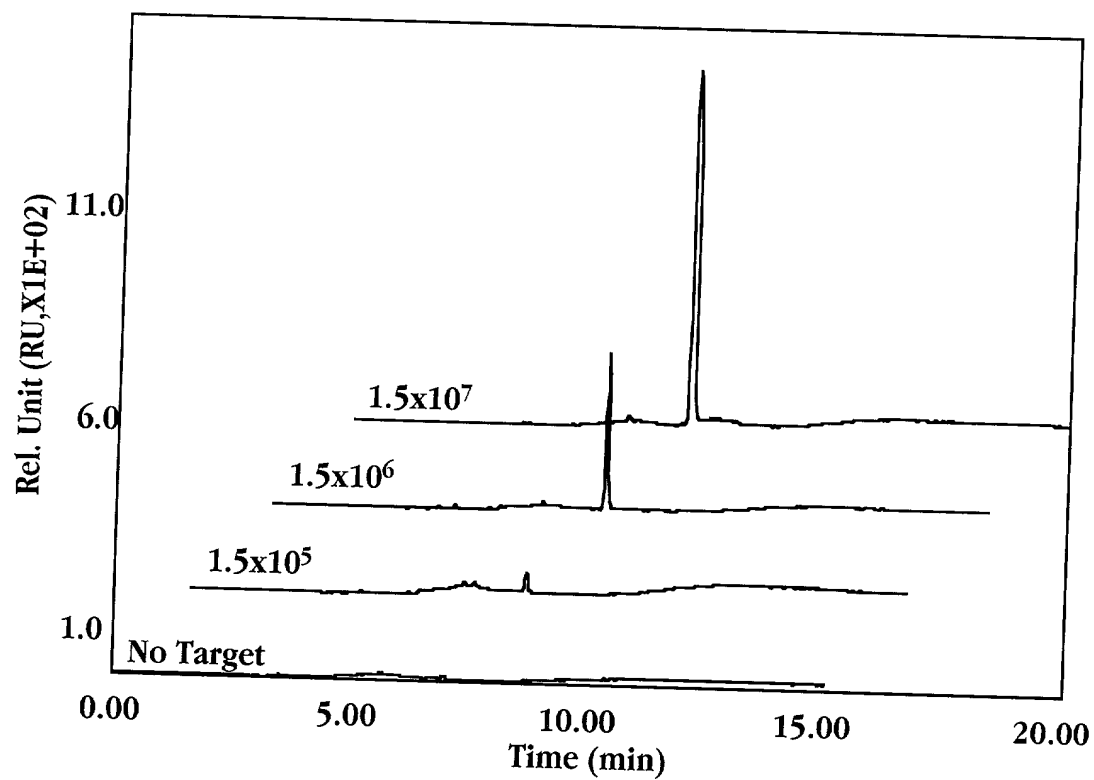
**Fig. 25C**



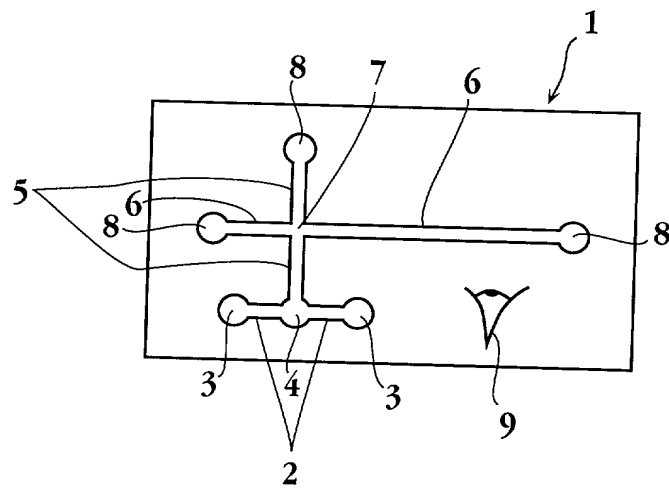
**Fig. 25D**



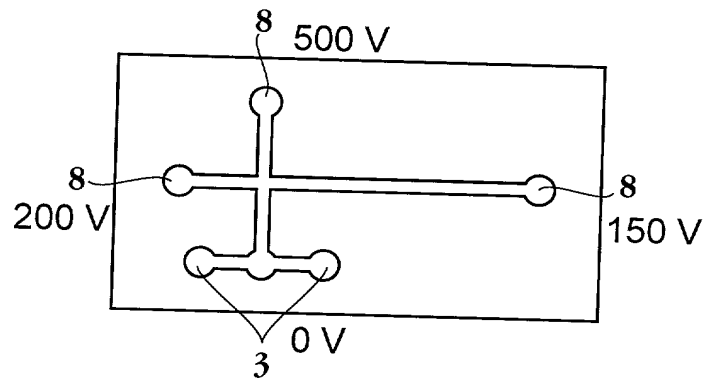
**Fig. 26**



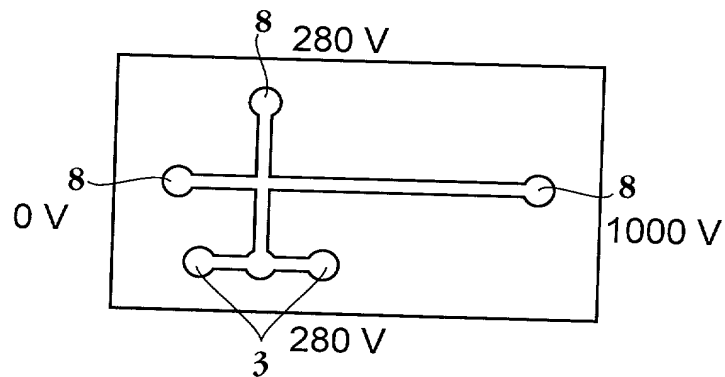
**Fig. 27**



**Fig. 28A**

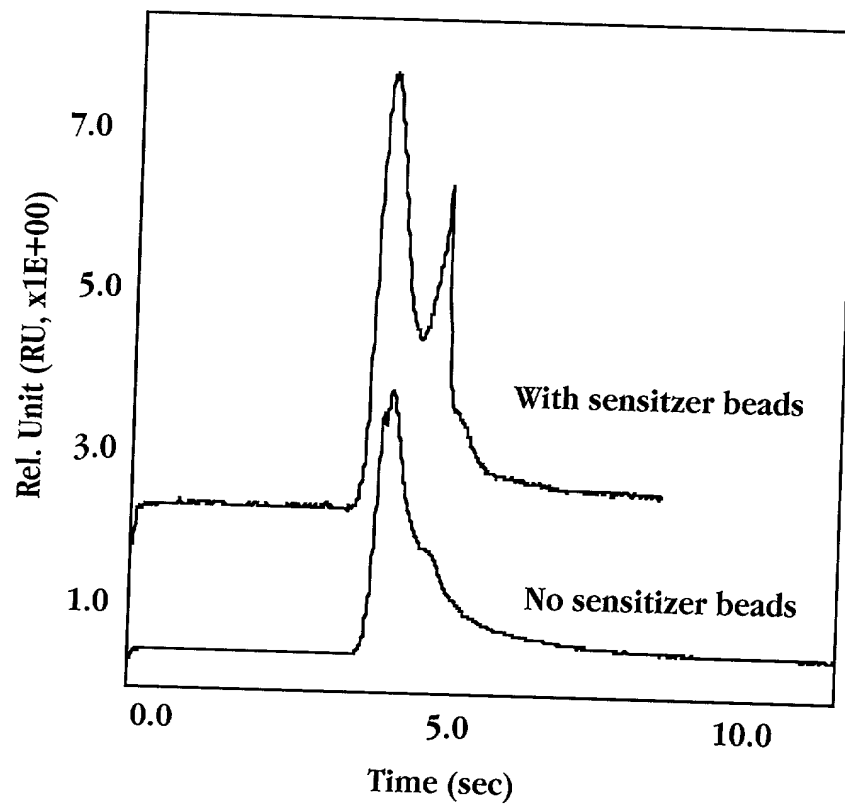


**Fig. 28B**

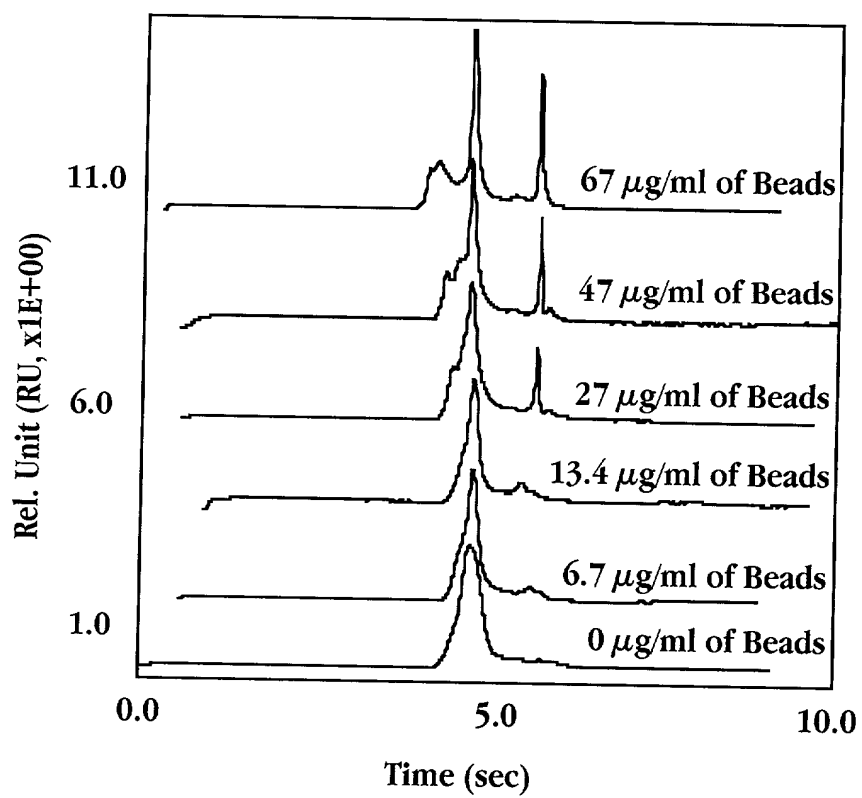


**Fig. 28C**

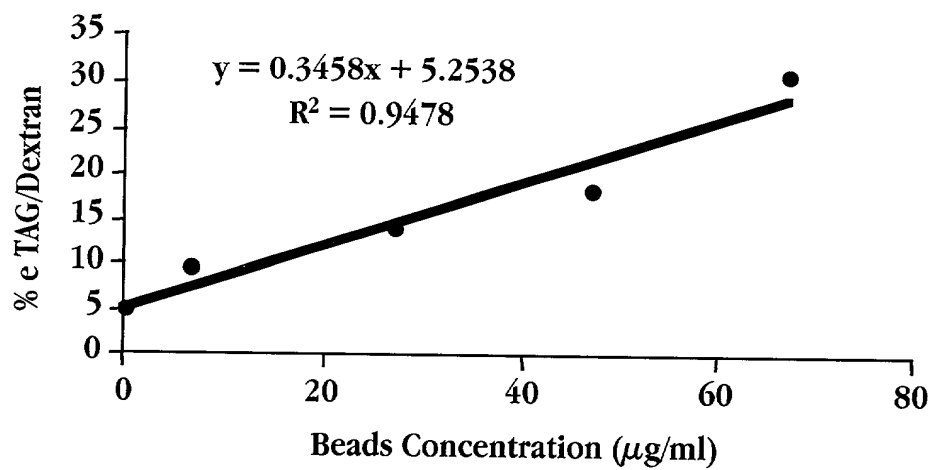




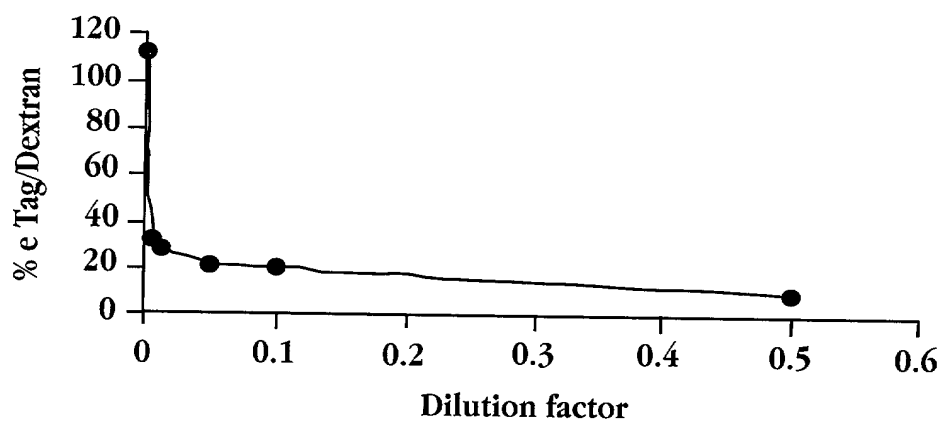
**Fig. 29**



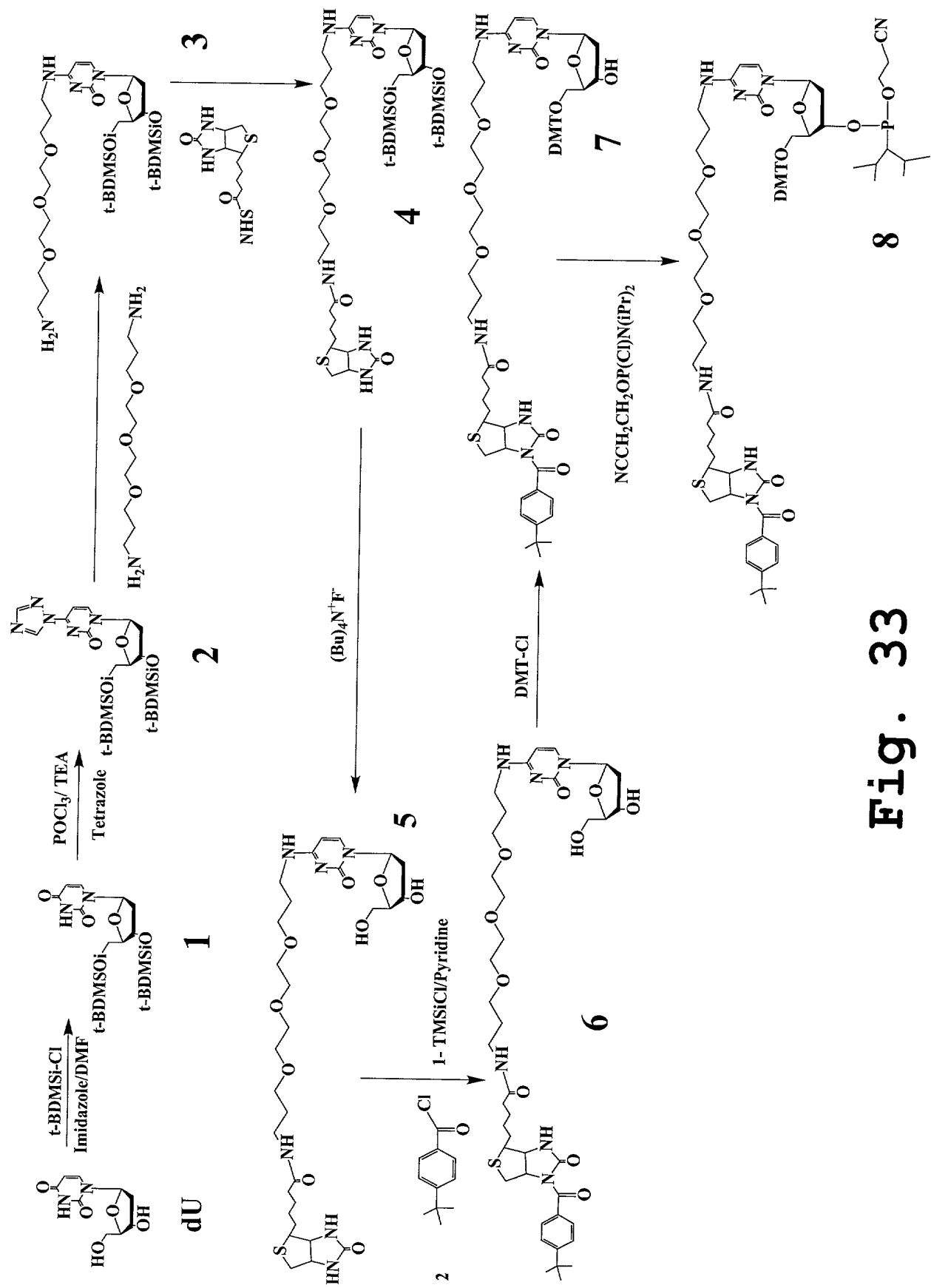
**Fig. 30**

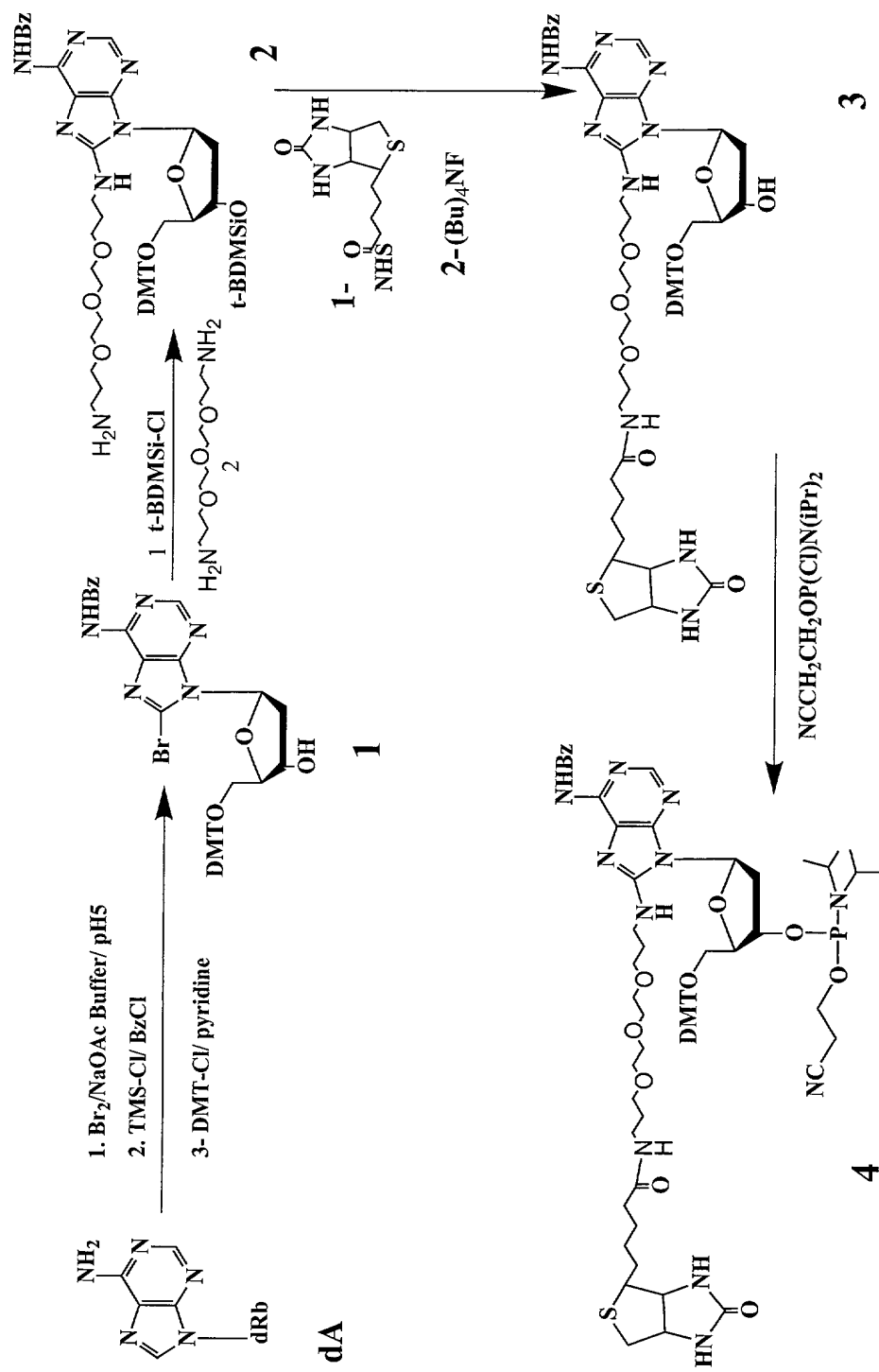


**Fig. 31**



**Fig. 32**





**Fig. 34**